College and University Business

WE SHOULD WELCOME GOVERNMENT SPONSORED RESEARCH

WILSON COMPTON
President, State College of Washington

RECOGNIZING THE FEAR OF SOME COLLEGES that government sponsorship may mean encroachment on the academic freedom so highly desired for research, may I nevertheless state my own contrary view: This fear comes from a risk which is certainly inherent in the program itself. But the risk is by no means inevitable, and it is therefore not a determining factor.

There are risks in all projects—"calculated risks," let us hope, as the military men recognize them. It is possible, if colleges accept government research projects and do not administer them properly, do not supervise them and fit them into the general college research program under standard college conditions, that the government then will "take over." But this would be *by default.* So long as a college administration has the right to refuse a project when it believes the matter not consistent with the purposes and methods of the institution, there can hardly be much to fear.

If the fear is that governmental blandishment through research funds will make some schools forget their standards and freedoms, then it may well be believed these standards are more of form than of substance and these freedoms not firmly rooted. If we do not get government money, we try to get private money. If the money is itself a blandishment, then should we not fear also the encroachment of those who offer private money? Yet rather readily we accept that risk. Why not accept as well the risk of government funds, because of the great potential benefit not alone for the schools and the scholars but for mankind?

The fact is, it seems to me, that governmental research in colleges, properly administered, is a *most* important and valuable contribution to human good in general, as well as to national security and the national economy in particular. Federal money makes possible research far beyond the reach of many competent institutions on their own funds. Certainly this does not have to be argued to the colleges themselves, which are the leading exponents of research. It has been a matter of the colleges' persuading individual supporters —and the government—that research *is* important and beneficial. Are we now suddenly, out of fear of something that may be met by intelligent administration, to say we do not want the research or the funds for which we have been arguing?

Far better, I should think, to spend our effort getting down to cases, examining each project as it is offered, taking it if consistent with college policy, trying to get it changed to become consistent with college policy if it is not so when first offered. We should maintain—on the firing line of everyday working with those projects—the high ideals and standards which we fear may be jeopardized by "encroachment," rather than throw away all in an unwillingness to risk anything.

We have had, for more than sixty years, government financed agricultural research in our land-grant colleges, to the great benefit of the nation's food resources and to no detriment of which I am aware to the schools or to the scholars. This research has to a large extent "made" American agriculture, and it is that agriculture as much as any other factor which today, in time of world-wide crisis, is holding our civilization together. Sound administration, high ideals and practices (made possible, indeed, by federal funds, rather than the reverse) have made agricultural research a precedent that may give us much hope. It is something *we* did, that *our* government did. The fear of regimented research, after all, comes from seeing what happened in regimented *governments,* and in our wildest exaggerations we cannot honestly say that of ours.

Since the control would be in our own hands, the only thing we must be fearing is ourselves, as educators and administrators. Those whose faith is greater than their fears will not be afraid.

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Among the Authors

C. E. Snedeker

CARL E. SNEDEKER, business manager of New Jersey State Teachers College at Montclair, had an interesting and varied career prior to accepting his present position. He had been a salesman for Macy's, a collection manager for the Household Finance Corporation, and was business manager of the State Teachers College at Paterson, N.J., prior to receiving his commission as communications officer in the navy. For the last twenty months he has been at Montclair. As a sideline, the navy saw to it that he visited South America, the Canal Zone, Australia and the Pacific theater of operations. Modeling trains and repairing his radio are the two things he likes to do when he has some spare time.

G. C. Turner

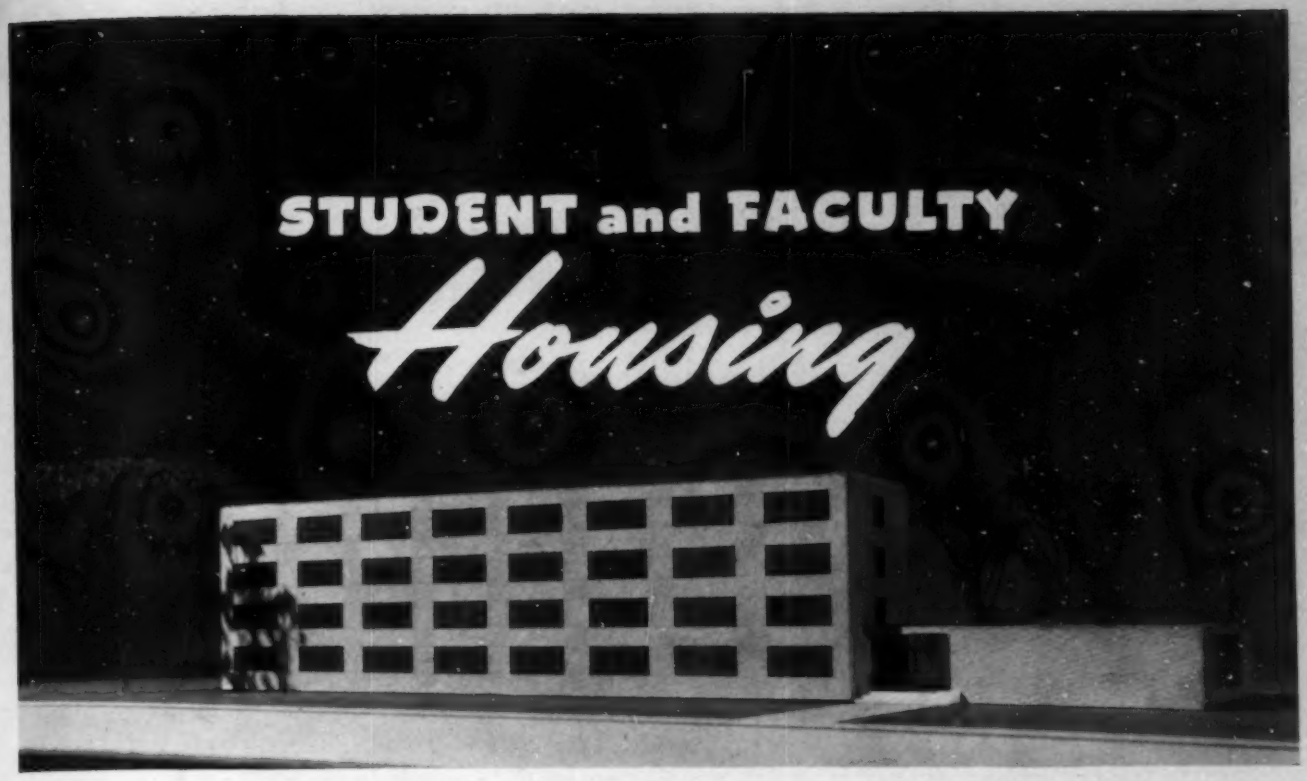
GLEN C. TURNER, controller of Colorado State College of Education, has been active in college administrative circles ever since he was graduated from Pomona College and obtained his M.A. from Harvard School of Business Administration. He has a strong interest in labor-management relations and did extensive research from 1937 to 1939 studying management training programs in industry for the Harvard Business School. When he has time he likes to do a little gardening and indulges a leisure reading interest in "historical swashbucklers."

C. M. Plaisted

C. MAXWELL PLAISTED, director of public relations at Keuka College, has combined his talents for art and writing and fashioned a career in advertising, newspaper work and public relations. He was art director and production manager of a Utica, N.Y., advertising agency for four years and then struck out on his own as free lance operator in art and advertising. He has been a member of the Keuka College faculty since 1939, and assistant professor of journalism and advertising since 1942. Because of his drawing and cartooning ability, he has done extensive illustrative work for advertising, detective and adventure story magazines. He often takes the tiller to do a little sailing but enjoys most "just sitting on the porch looking at Keuka Lake."

C. S. Sifferd

CALVIN S. SIFFERD, supervisor of counseling of men's residence halls at the University of Illinois, was a salesman, newspaper editor and publisher, and a superintendent of schools before accepting his present position. He has always enjoyed working with people, and particularly youngsters. This includes work with Sunday school classes, Y.M.C.A. coaching, and as boy scout adviser. He is an active writer, with eight magazine articles to his credit. His hobby is raising and showing Borzoi (wolfhounds to any but the uninitiated), although he admits it is really Mrs. Sifferd's hobby—he just helps her.



TRUE COSTS OF BOND FINANCED CONSTRUCTION

CARL E. SNEDEKER
Business Manager
New Jersey State Teachers College, Montclair

WHEN THE COST OF BUILDINGS IS financed by the issuance of bonds, the interest rate on the bonds ought to be a factor of great importance in determining the ultimate cost of the buildings to the taxpayer. For this reason, an attempt was made to correlate these factors relative to the construction of buildings financed by bonds.

It was not the intent of this study to interpret future trends but merely to see what has happened in the past and to determine the true cost of buildings financed by serial bonds. It can be seen from a study of the graph that building costs alone are not the determining factor for such construction. Interest rates have considerable effect on the true cost. Very low interest rates kept true costs below normal until late 1946 and less than 15 per cent above normal since that year.

FACTORS CONTRIBUTING TO COST

The number of dollars to be raised by a bond issue for construction of buildings must be determined by the prevailing building construction costs. However, the ultimate true cost of construction is determined not only by prevailing building construction costs but also by prevailing interest rates at the time the bonds are issued and by the length of the period of amortization.

ANALYSIS OF TABLE

The table on the following page shows the results that have been reached by a study of the relationship among these three factors in determining the true cost of a building program financed by the sale of bonds in relation to the true costs of identical building programs, similarly financed, in a base year.

An inspection of the table on page 4 shows that building costs in 1947 were 71.36 per cent above those in 1923. But interest rates were 72.89 per cent below the 1923 figure. A building program financed by a thirty-five year serial bond issue would cost only 14.96 per cent more in 1947 than the identical building program would have cost in 1923, if it had been similarly financed.

From 1923 through 1930 all three indexes varied little from the base year. By 1931 the real effects of the stock market crash of 1929 were reflected by a sharp drop in all of the indexes.

The downward trend continued until 1933. Since that date building costs have increased, but interest rates have decreased sufficiently to keep true building costs below the base year until 1946.

SOURCES AND METHODS USED

The figures in columns 2 and 4 were taken from a study made by Martin H. Bartels, research assistant for the Cincinnati public schools. The building cost index is based on construction similar to school buildings. These figures were then compared with

Computation of Indexes for Building Costs, Average Interest Rates, and True Building Costs When Construction Is Financed by Serial Bond Issues Over 35, 25 and 15 Years

1	2 C. C. Index	3 % of 1923	4 Average Int. Rate	5 % of 1923	6 True Cost Index (35 Year Bond Issue)	7 % of 1923	8 True Cost Index (25 Year Bond Issue	9 % of 1923 (25 Yrs)	10 True Cost Index (15 Year Bond Issue	11 % of 1923
1921	98.5	98.30	5.50	119.30	5.599	107.10	6.757	105.63	9.456	103.41
1922	92.1	91.92	5.50	108.46	4.999	95.62	6.079	95.03	8.596	94.01
1923	100.2	100.00	4.61	100.00	5.228	100.00	6.397	100.00	9.144	100.00
1924	103.9	103.69	4.50	97.61	5.373	102.77	6.587	102.97	9.420	103.02
1925	104.7	104.49	4.43	96.10	5.377	102.85	6.600	103.17	9.454	103.39
1926	101.6	101.40	4.35	94.36	5.176	99.01	6.362	99.45	9.130	99.85
1927	99.2	99.00	4.20	91.11	4.977	95.20	6.135	95.90	8.835	96.62
1928	101.8	101.59	4.12	89.37	5.066	96.90	6.253	97.75	9.024	98.69
1929	101.4	101.20	4.44	96.31	5.212	99.69	6.397	100.00	9.161	100.19
1930	102.9	102.69	4.35	94.36	5.242	100.27	6.444	100.73	9.247	101.13
1931	97.6	97.41	3.85	83.51	4.721	90.30	5.858	91.57	8.511	93.08
1932	80.2	80.04	3.50	75.92	3.735	71.44	4.667	72.97	6.844	74.85
1933	81.1	80.94	3.14	68.11	3.627	69.38	4.568	71.41	6.765	73.98
1934	92.3	92.12	2.78	60.30	3.957	75.69	5.026	78.57	7.522	82.26
1935	93.5	93.31	2.43	52.71	3.840	73.45	4.921	76.93	7.445	81.42
1936	93.2	93.01	2.42	52.49	3.823	73.13	4.901	76.61	7.416	81.10
1937	107.5	107.29	2.21	47.94	4.293	82.12	5.535	86.52	8.434	92.24
1938	112.4	112.18	2.00	43.38	4.368	83.55	5.665	88.56	8.692	95.06
1939	113.9	113.67	2.05	44.47	4.455	85.21	5.770	90.20	8.839	96.67
1940	116.0	115.77	1.78	38.61	4.376	83.70	5.714	89.32	8.835	96.62
1941	116.5	116.27	1.52	32.97	4.239	81.08	5.581	87.24	8.711	95.26
1942	120.6	120.36	1.26	27.11	4.221	80.74	5.608	87.67	8.844	96.72
1943	124.5	124.25	1.25	27.11	4.358	83.36	5.789	80.50	9.130	99.85
1944	133.9	133.63	1.14	24.73	4.611	88.20	6.150	96.14	9.741	106.53
1945	142.8	142.51	1.02	22.13	4.829	92.37	6.469	101.55	10.297	112.61
1946	154.7	154.39	1.25	27.11	5.415	103.58	7.194	112.46	11.345	124.07
1947	171.7	171.36	1.25	27.11	6.010	114.96	7.984	124.81	12.591	137.70

building costs and interest rates for New Jersey, where such figures were available. Where comparison was possible, these figures were almost identical for the same periods.

A formula was then constructed in order to ascertain for any given year what would be the total cost of amortizing a serial bond issue floated specifically for building construction of the same year. This formula was found as follows:

1. The sum of money to be raised by a bond issue in any one year to construct a building is influenced by the construction cost index for that year. Therefore, if B is the symbol for the sum of money to be raised by a bond issue to construct the building in a base year, and C is the symbol (in per cent) for the construction cost index, then B times C, or BC, is the amount of money required to be raised by a bond issue to construct that building, regardless of the year.

EXAMPLE:

Base Year

B = $2,000,000
C = 100%
BC = $2,000,000

1947

B = $2,000,000
C = 171.36%
BC = $3,427,200

2. To amortize the principal of a bond issue by fixed amounts each term (serial bonds retired at fixed intervals) requires a fixed charge equal to the total bond issue divided by the number of terms. Where N is the symbol for the number of terms and BC is the amount of money raised by the bond issue, the fixed charge required each term for amortization of the total bond issue is $\frac{BC}{N}$.

3. During the amortization period, interest charges must be met each term on the outstanding bonds. The most widely used formula for finding the average interest payable during the amortization period, where the principal is reduced by fixed amounts each term, is as follows:

BC = Total bond issue (principal)
I = Average interest payable each term
N = Number of terms
R = Interest rate

Then, $I = BC \frac{(N+1)R}{2N}$ or $\frac{BC\ (N+1)R}{2N}$.

4. We therefore find that the total amount of money required each term to retire the bonds and pay the interest is equal to the sum of the fixed amount required to amortize the principal and the average interest payable.

$$\frac{BC}{N} + \frac{BC\ (N+1)R}{2N} = \frac{2BC + BC\ (N+1)\ R}{2N} = \frac{BC\ 2 + (N+1)\ R}{2N}.$$

5. Since B is a constant factor in the formula, it can be eliminated and the finished formula appears thus:

C = Building Cost Index
N = Number of Interest Terms
R = Rate of Interest (coupon rate)

$$\text{True Cost Index} = \frac{C\ 2 + (N+1)\ R}{2N}.$$

This formula was then applied to the figures in columns 2 and 4 for each year. The results are found in columns 6, 8 and 10.

An examination of column 2 shows that 1923 had a building cost index of 100.2, which is the closest to 100. This year was therefore chosen as the base year. The figures in columns 3, 5, 7, 9 and 11 were then computed as percentage variations from the base year and became respectively the Building Cost Index, Average Interest Rate Index, and True Building Costs Index. These indexes were then placed in graph form to facilitate a study of their relationships and trends.

Units 3 and 4 of the faculty apartments at Colorado State College.

EIGHTEEN YEARS OF FACULTY HOUSING

GLEN C. TURNER
Controller, Colorado State College of Education

FORTY-TWO PER CENT OF THE FACULty of Colorado State College of Education at Greeley is housed in high standard apartments. The first unit was built eighteen years ago, and its three story Tudor style set the architectural pattern for the three other units that have followed.

In 1930 the president and trustees, after conferring with the faculty and being assured of a particular demand for apartment housing, decided to undertake construction of Faculty Club Unit 1.

Unit 1 contained thirteen apartments, a large lounge to seat 300, a library-card room, a billiards room, a banquet room accommodating 250 at tables, two guest suites, a club kitchen, public rest rooms, and laundry.

Financing was arranged solely through the sale of income bonds, most of which were eagerly bought by faculty members themselves. The Faculty Society, enthusiastic for the project, agreed to pay from its dues $1 per person per month (later reduced to 50c) to provide for the upkeep of facilities and space accessible to all. This fee, a nominal sum, yields sufficient revenue to maintain nonrentable portions of the building in good condition on a pay-as-you-go basis.

The popularity of the "club" was instantaneous. Since the first building failed to accommodate all eligibles seeking apartment quarters, plans were soon completed for a second unit. Depression conditions, attended by uncertainty about the constancy of salary income, caused some hesitancy in proceeding, and it was not until a P.W.A. grant to cover 40 per cent of capital investment was available in 1936, that Unit 2 was completed.

In the second structure provision was made for twelve apartments, an expanded electrically equipped service kitchen, family dining room and a party dining room. Income bonds were again sold—this time to wealthy Denver investors—to supplement the P.W.A. subsidy. A higher leverage of net operating income to pledge on Unit 2, in ratio to borrowed funds invested, made practicable an accelerated retirement of the Unit 2 bond issue. Last payments against the twenty-year repayment schedule were completed in 1946.

Continued requests for club housing, attributable to the satisfaction of tenants in the first two units, made it advisable to erect Unit 3 containing another twelve apartments during the school year 1939-40. By that time the manifest demand was for larger apartments with one or two bedrooms and a private study. Accordingly, Unit 3 was planned with spacious living rooms and commodious bedrooms. Signed leases again assured full occupancy from the moment it was ready.

Through a refunding of the unamortized portion of the income bond issue on Unit 1 (by then reduced to $30,000) and by a consolidation of the physical operations of Units 1 and 3, it was possible to sell a refunding bond issue pledging the net earnings of old and new properties over a twenty-year amortization program at an interest rate slightly over 3 per cent.

World War II caught the completed plans for the construction of Unit 4 on the architect's drafting board. By 1942 rentable properties had vanished from the entire community. Our waiting list of eligibles for college housing and apartments had grown so prodigiously that strict rules of priority had been invoked in order to ration the limited space available. Some relief for the needs of the custodial and secretarial staffs was provided by the purchase of older properties adjoining the campus, among them a comfortable, well preserved property containing thirty-seven medium-to-small apartments.

Despite some progress when building again became possible, thirty-nine

Glimpse of one of the kitchenettes in a faculty apartment. The college owns the electric stoves and refrigerators.

Comfortable living room in a faculty apartment. This is in a one bedroom apartment in Unit 2.

The club area of each unit has a large lounge, often used for bridge parties after special dinner service in the club dining room and now and then for weddings.

families of recently engaged college employes were stoically waiting salvation from small rooms or neighboring towns. Consequently, in complete disregard of unfavorable conditions of material supply, an uncertain labor outlook, and astronomic costs, it became imperative to proceed at once with the long arrested plans for the construction of Unit 4. There followed, not unexpectedly in 1947, thirteen months of construction with attendant griefs. Nonetheless, we were able on April 15 of the year to turn over a well appointed building to twelve grateful tenants.

Unit 4 has the doubtful distinction of being the highest cost structure of its kind in our immediate region. Moreover, it carries the most bizarre financing we have ever devised. Borrowed capital funds, secured by the ordinary self-liquidating features of income bond indebtedness, would have been justified for this building only as a last resort. Fortunately, the school was able to arrange internal financing of the project by borrowing without interest on a short-term repayment program from the state building mill levy monies accumulating with the state treasurer for postponed educational plant construction.

Need we confess that cajolery and tortuous circumvention of the legal legerdemain were essential to accomplish this feat? But there were compensations. Some $60,000 of the interest savings are assured by this interfund transaction. The trustees agreed to pledge the net revenues from several unrestricted operating accounts (including the debt-free Faculty Club Unit 2 of the self-maintaining properties) for the repayment of the diverted mill levy funds.

Unit 4, built at a cost two and one-half times that of any previous apartment construction, is obviously not a "self-liquidating structure" under the conventional, prudent standard of a twenty-year debt amortization program. It has, nonetheless, we think, already served an educational purpose nobly. The president attributes to our demonstration of building activity his ability to acquire or to retain twelve highly competent members of the faculty without distorting the institution's salary scale.

SUMMARY OF FACILITIES

In all, therefore, our Faculty Club buildings provide forty-seven apartments, now accommodating fifty-three members of the administrative staff or faculty, some 42 per cent of those eligible at present to apply for housing in club quarters. Apartments, as table 1 suggests, range in size from those suitable for bachelors' quarters up to those capable of housing a family of five persons comfortably.

Nearly all space is rented unfurnished, but there are abundant built-in features in most apartments. Wall dressers, cabinets, buffets, wardrobes and bookcases increase the appointments of the apartments and reduce need for the tenants' furnishings. Kitchens are equipped with college-owned electric stoves and refrigerators. Laundry rooms contain automatic washers of the spin-dry type furnished and maintained free by the institution. Attic and basement space is marked off for storage. Divided stalls under lock and key are found in the attics for the protection of valuable luggage.

In the rear of the club units thirty-four heated garage stalls in three buildings house the tenants' automobiles for $3 each a month. All four buildings are thermostatically heated by circulating hot water delivered from the central heating plant of the college. Electricity is furnished for an extra flat fee not exceeding $4 an apartment.

SUBLETTING PERMITTED

Even with some turnover of tenants, occupancy has been unusually good. never having fallen at any time below 96 per cent of rated house capacity. Leases are signed for the college fiscal year, but subletting is permitted and becomes customary when faculty members are on extended leave or taking sabbaticals. Sublessees must be eligible for occupany, *i.e.* must be on the college pay roll. Leases are broken automatically on termination of a salary contract except for the emeritus members of the faculty who may, by special arrangement, occupy their quarters without interruption for life. Rents are collected in advance each month when salary warrants are distributed.

It will be noted by reference to table 2 that there was considerable variation in capital expenditures for each of the units. Although the four structures are not exactly comparable in design or fire-resistant classification, changes in the national price index for general construction were responsible in major part for the cost variations recorded.

Our college officials consider the "best buy" of all to be Unit 2, built in 1936. Unit 4, finished at high capital cost, is exceptionally well constructed for the convenience of occupants.

In table 3, an operating statement expressed in percentage form, there appear typical percentage breakdowns of income and expense for all club apartments' operation over the recent service life of the group. If a single year were selected for study, operating expenses might vary extensively from the combined normal performance of previous periods. In our experience operating expenses have been as low as 37 per cent and as high as 56 per cent of gross annual income. Net operating profit available for surplus, reserves and debt service has always been more than adequate to meet the stipulations of the bond covenants.

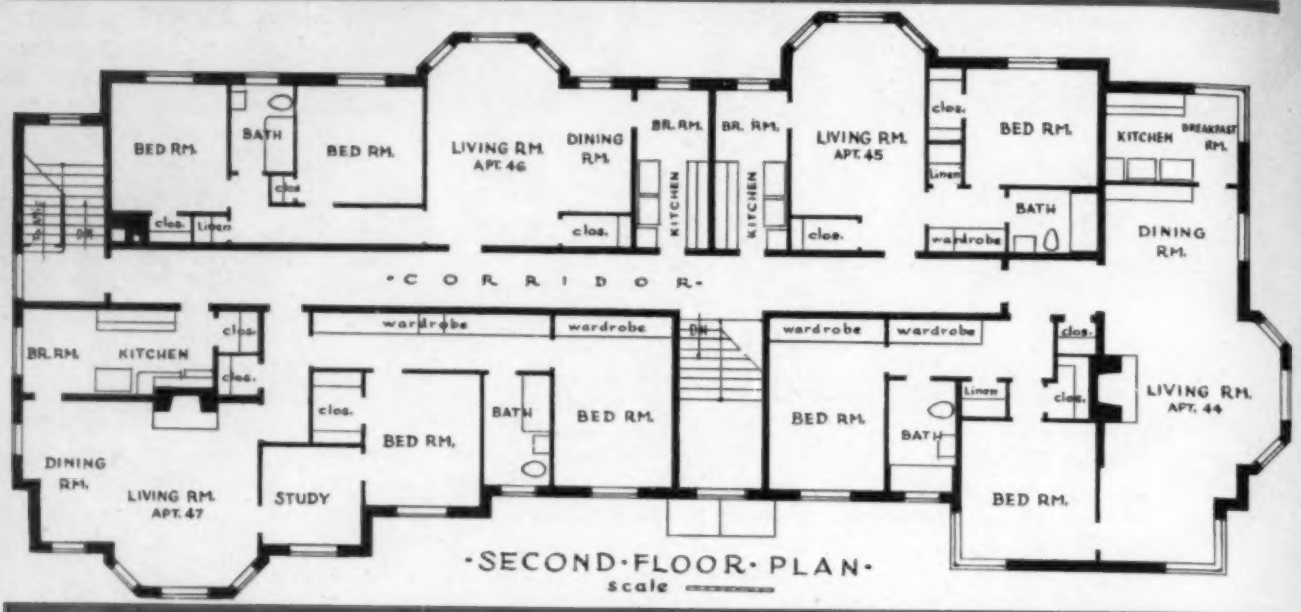
The college rent schedule for club buildings has purposely been kept below the competitive market during the 1942-48 inflationary period. Rent advances, totaling in the aggregate 18 per cent and taken in two steps a year apart, have been concluded without overt murmurs from tenants. Much higher rents are amply justified, if rationalized from reproduction cost of the depreciated buildings, but have conscientiously been avoided throughout the period.

The trustees and the college administration condone this ill concealed subsidy for two reasons: (1) relative hardship in the college faculty is obvious because faculty income, though improved, has not kept pace with the spiraling cost-of-living index; (2) public policy under the various rent control acts has sought to protect the private renter enjoying ceiling controls in such a way as to make institutional rent increases appear invidious.

Table 1, already mentioned, shows what the faculty members' rent dollars buy in 1948 in each class of club quarters. In computing gross charges, add garage rent and electricity charges, if desired, for pricing comparisons.

FACTORS IN SUCCESS

Nothing thus far, perhaps, would indicate that our housing performance is unique. After all, are not chicken coops and piano boxes in fairly heavy demand right now if they happen to adjoin a college campus where enrollment has doubled and where an ordinary five-room house sells at $20,000? But our stake in faculty housing was laid down before these abnormal conditions arose and must be picked up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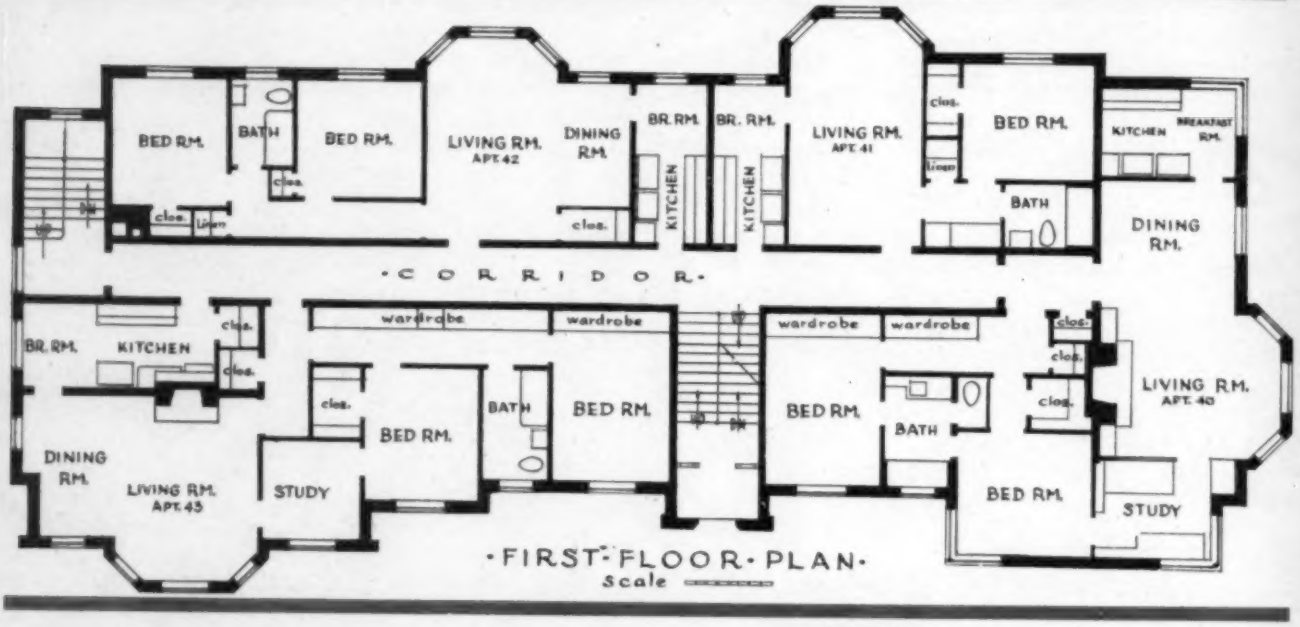
DINING RM.
LIVING RM. APT. 47
STUDY
BED RM.
SECOND FLOOR PLAN
scale


BED RM.
BATH
BED RM.
LIVING RM. APT. 42
DINING RM.
BR. RM.
KITCHEN
BR. RM.
KITCHEN
LIVING RM. APT. 41
clos.
Linen
BED RM.
KITCHEN
BREAKFAST RM.
BATH
DINING RM.
CORRIDOR
BR. RM.
KITCHEN
clos.
wardrobe
wardrobe
wardrobe
wardrobe
clos.
BED RM.
BATH
BED RM.
BED RM.
BATH
clos.
LIVING RM. APT. 40
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LIVING RM. APT. 43
STUDY
BED RM.
STUDY
FIRST FLOOR PLAN
scale

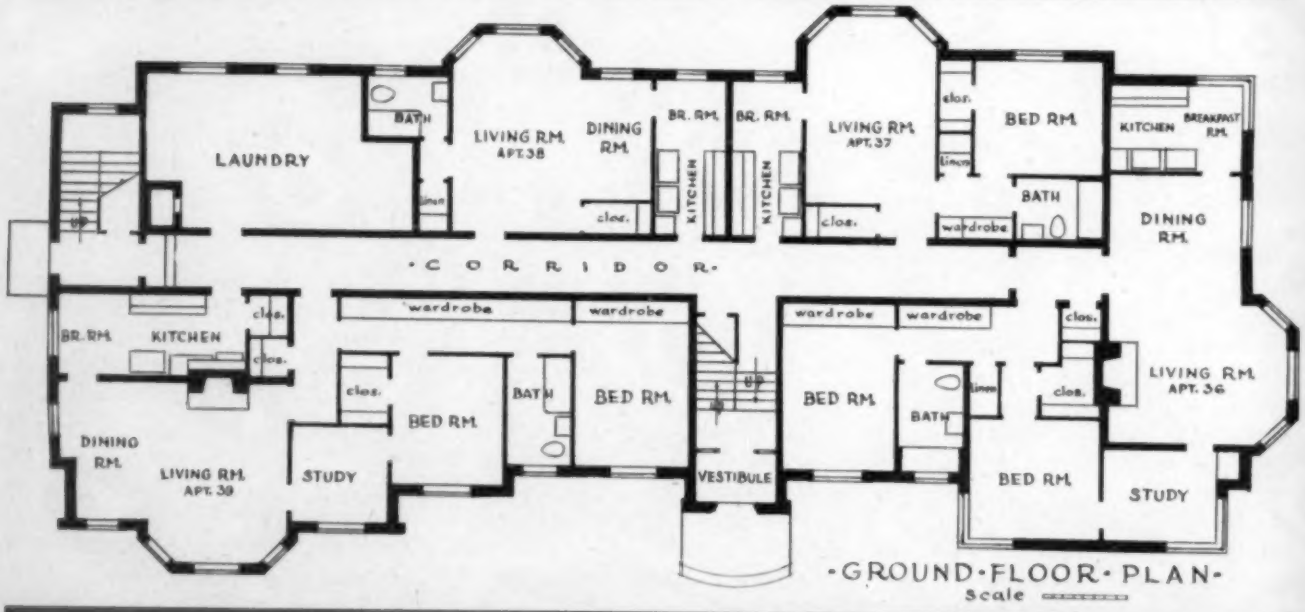

LAUNDRY
BATH
LIVING RM. APT. 38
DINING RM.
BR. RM.
KITCHEN
BR. RM.
KITCHEN
LIVING RM. APT. 37
clos.
Linen
BED RM.
KITCHEN
BREAKFAST RM.
BATH
wardrobe
DINING RM.
CORRIDOR
BR. RM.
KITCHEN
clos.
wardrobe
wardrobe
wardrobe
wardrobe
clos.
BED RM.
BATH
BED RM.
BED RM.
BATH
Linen
clos.
LIVING RM. APT. 36
DINING RM.
LIVING RM. APT. 39
STUDY
BED RM.
VESTIBULE
STUDY
GROUND FLOOR PLAN
scale

Table 1—Rental Rates and Types of Quarters Furnished Faculty Club Apartments. (Effective April 10, 1948)

No. of Apts. Available	Composition of Quarters Provided	Monthly Rental Ranges
5	Living room, rollaway bed, closet and bath	$25
11	Combination living room-bedroom, bath and kitchenette	35-40
8	Living room, bedroom, kitchen, bath and rollaway bed closet	45-55
5	Living room, bedroom, combination study-bedroomette, kitchen, bath	50-55
4	Two bedrooms, living room-dining room, kitchen and bath	55-60
14	Two bedrooms, living room, dining room, study, kitchen and bath	65-80

Table 2—Comparative Construction Costs

Bldg.	Cubage	Sq. Ft.	Adjusted Costs	Cost Per Cu. Ft.*
Unit 1	193,739	15,692	$ 72,363.19	.374
Unit 2	141,350	13,138	$ 73,685.94	.521
Unit 3	180,720	13,926	$ 77,995.65	.432
Unit 4	184,744	14,585	$187,984.77	1.018

*No equipment included; garages excluded.

Table 3—Typical Consolidated Operating Statement, 1942-47

Operating Income	Per Cent
Apartment Rentals	94.23
Guest Room Rentals	2.12
Other Income (lounges, garages, etc.)	3.65
Total Operating Income	100.00
Operating Expenses	
Salaries and Wages	10.23
Miscellaneous Supplies	2.09
Repairs	13.68
Replacements	4.88
Utilities	9.27
Laundry	.65
Insurance	1.48
Gen. Overhead Apportioned	4.94
Other Expenses	.14
Total Operating Expenses	47.36
Net Operating Income available for debt service, reserves and capital improvements	52.64
Debt Service Requirements	29.17
Unrestricted Surplus	23.47

in a game of chance statistically certain to continue long after the current building crisis is over. How do we account for our modest success to date, and on what do we depend for the future?

We attribute our relative good fortune in making the Faculty Club apartments development serve institutional purposes to six factors:

1. Space for space, club units are above the standard of housing of the community.

2. Club apartment life has been carefully planned to fit co-existent, but paradoxical, living interests of the faculty. The demand has been for a substantial personal freedom and privacy combined with readily available outlets for gregarious responses and group activities.

The maintenance of the dining room in the club area has proved to be an attractive feature for single women professors and for the family bored with its own cuisine and depressed by an aftermath of dishwashing. Club guest suites are used constantly by residents to entertain friends visiting for brief periods. Frequently the club lounge is in use for bridge parties after special dinner service in the "party" room. Gardeners acquire aching backs and gorgeous iris on plots of ground especially reserved for them. Youngsters of all ages are welcomed as residents.

3. The buildings and grounds division is under explicit instructions to attain a high standard of maintenance. We often furnish tenants courtesies strictly out of routine in ordinary commercial apartment service. Packages are received for tenants when they are away and are delivered to the door when they arrive home. Cleaning of access areas must be meticulous and above criticism.

If a distressed professor's car won't start in winter, a college custodian probably will tow it to a neighborhood garage. A telephone call gets prompt service on a jammed casement or leaky faucet. Redecoration, with deferential regard for the tenant's tastes, takes place oftener than empirical maintenance formulas would dictate.

4. Space assignments and club apartment policies are made objectively but directed with a personal touch by the president's office. Answers are firm, direct and consistent with the teacher-employment commitments that have been made.

5. Club units are operated as components of our division of self-maintaining properties. Accrual accounting for club operations is detailed and accurate. Overheads are distributed over many properties to keep individual unit costs at a minimum. An experienced custodial staff is available to do many tasks in club apartment quarters as well as in residence halls and other college houses. In the environment of a small college of 1800 students a self-maintaining properties organization is an extraordinary advantage. Schools not similarly situated can ill afford to overlook the value of such an auxiliary organization.

6. A large majority of the faculty group prizes the job security it has attained. Satisfied in a permanent tenure status, our people can make long-term plans. With few exceptions, salaries are paid annually by the college on a twelve-month basis for four quarters of instruction assignments.

TURNOVER IS LOW

Cool summers in Colorado obviate the need for the breaks in residence urgent in intolerably humid, warmer climates. Summer session teaching ends six or seven weeks before the fall term starts. Strictly in the Western tradition, faculty life in Greeley is informal, free of caste, socially cohesive and, we believe, unique in avoiding the curse of factional cleavages. These factors have a bearing on housing, and club residence is not subject to incessant turnover.

An improper mixture of any of the foregoing ingredients can foredoom apparently well conceived projects to failure.

Consequently, we believe: (1) that a market analysis is mandatory before any permanent housing is undertaken, and (2) that it is well to develop the plan cautiously with frequent prudent reappraisals of the campus outlook.

ROOM DESIGN AND FURNISHINGS FOR *Women*

DANIEL PAUL HIGGINS
Eggers & Higgins
Architects, New York City

LAST FALL WHEN THE FIRST STUdents moved into Gailhac Hall at Marymount College, we found vindication of the view that you can have built-in furniture and still retain opportunities for individual expression of ideas in interior decoration.

We had decided to see what could be done to get maximum use out of cubage from floor to ceiling. The usual deep, narrow closet with relatively narrow doors that tend to make rear areas useless was eliminated from our planning. Instead, we planned wide spaces with rolling doors from end to end, with the depth no greater than convenient arm's reach. Every inch was thus made useful to the room's occupant.

The closets are compact with a stack of drawers designed for ready handling, with shoe racks conveniently placed yet taking up a minimum of space, with adequate space for hanging clothes, including long evening dresses, and with shelves for storage of miscellaneous items — but within quick reach. Less frequently used articles and luggage may be easily stored on top shelves.

Well chosen standard furniture makes the built-in closet that much more valuable. Each girl, whether in a single or a double room, has her own night table, chair, desk and bureau. To these are added such pieces of furniture or decoration as the girl may wish.

The new furniture is smartly designed in steel; color groups include burgundy and ivory paneling, green, blue, amber and a popular combination called "silver mist" that features trimming of silver gray, with a blue background.

Around these pieces of furniture designed for utilitarian purposes, the individual student may apply her own imaginative treatment to create a home-like atmosphere. Draperies, additional chairs, pictures and personal items give life to each room.

BUILT-IN CLOSET in use. Adjacent to the shoe rack is space for hanging shorter garments such as sweaters or sweat shirts.

From all front rooms, views may be had for many miles of the widest stretches of the Hudson, and from all of the rear rooms, the picturesque Tarrytown lakes and the rolling hills and diversified scenery of Westchester County may be seen.

Each pair of rooms is connected by a bathroom. All bathrooms are interior rooms, mechanically ventilated so that the full perimeter of the building is utilized for windows lighting the bedrooms. The rooms have tinted walls with matching tiles in the adjoining bathrooms. All single rooms, of which there are 90, are in the three-story wings; all double rooms, numbering 63, are in the central portion.

The dominant building on the campus is Butler Hall, flanked by Gerard Hall on the north and the Science Building on the south. All of these buildings are in French Renaissance style and were built when costs were much more reasonable than they are today.

Faced with the problem of designing a building in harmony with three structures in the French Renaissance style in a period of almost prohibitive costs, we decided that stonework could be kept to the minimum and, when used, could be reminiscent of the style of the neighboring group. This concept carries out the color scheme effectively. The new building looks as if it "belongs," yet it has proved as economical to build as present circumstances permit.

The structure is a steel frame with two-way tile arch and concrete slab construction. The soil is sufficiently good to allow the use of spread footings. The exterior materials are Swenson pink granite, buff Indiana limestone, and a buff brick bordering on an orange tone. The base course, at grade, and the west terrace are of granite like Butler Hall. The main entrance doorway, which is the only ornamental feature on the west façade, and a few simple band courses and cornices are of limestone. The brick is laid in Flemish bond. All exterior windows and doors are wood, except roof doors, which are metal.

The building has a four story central portion with three story wings north and south of it. Stairs separate the three parts and are expressed on the exterior by pylon-like towers.

Under the north wing is one large recreation room. Adjoining it, in the rear of the central portion, is a small snack kitchen. The remainder of the basement floor is as yet unassigned.

The building is equipped with self-service elevator. At each floor, adjacent to the elevator, is the supervisor's bedroom.

The residence hall will house comfortably more than 200 students. It is named for Pere Antoine Gailhac, founder of the Institute of the Religious of the Sacred Heart of Mary.

MARYMOUNT COLLEGE: Left, single room; right and below, double room.

ROOM DESIGN AND FURNISHINGS FOR *Men*

LEE BURNS
Director of Residence Halls
University of Wisconsin

THE FIRST MEN'S HALLS AT THE UNIversity of Wisconsin were constructed in 1925. A second group was added in 1939-40. The latest addition to the system, the Charles Sumner Slichter Hall, was completed last fall.

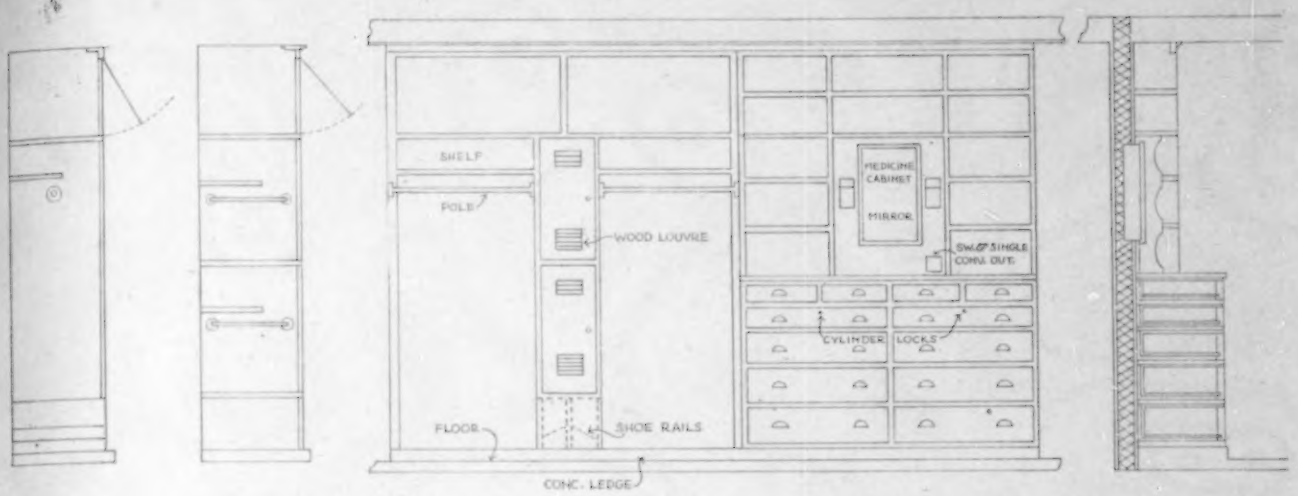
Since 1926 and up to the present date, we have kept an active file of suggestions for improving residence halls. These have come from students, house fellows, maintenance men, and the entire residence halls staff, and they relate to improvements in building layouts and in student rooms. The student room in the new Slichter Hall is a combination of these ideas and is, we believe, an excellent room for men. The room is not extravagant, but it has been designed for comfortable living at moderate cost.

A standard double room is 12½ by 14½ feet and is 9 feet high. The one large double window in each room has a wide marble sill. We have found that with a window sill of marble or terrazzo the maintenance cost is far less than it is with a wood sill which has to be refinished every few years. All rooms have venetian blinds, which have proved popular with the residents and are not much more costly than suitable window curtains. (Cleaning venetian blinds does place a burden on the maintenance staff but we are convinced that they are worth the effort.) Student rooms have an attractive asphalt floor; rubber tile was used in the corridors, where ceilings are acoustically treated.

A cabinet wardrobe section for two men is built along one side of each room. For the average male student, we have found that approximately 36 inches of wardrobe hanging space is sufficient. The upper portion of the wardrobe is devoted to storage space for small week-end suitcases and bulky boxes. The shoe rail is an advantage, for it keeps the floor area clearer and easier to clean. Louvers in the door sections of the towel cabinet permit circulation of air and cut down the danger of mold or musty odors.

Drawers in the bureau section are designed to give ample depth to ensure capacity use. Unless a drawer is deep enough, a folded shirt cannot be placed in it advantageously. A drawer 21 inches deep is satisfactory for most purposes. It is essential that each student have one drawer which is completely enclosed and is provided with a good lock. It is a good idea to design this drawer so that it cannot be removed, eliminating the danger of a mixup in keys.

A built-in medicine cabinet over the bureau section keeps shaving materials, tooth brushes and other toilet articles off the top of the bureau, adding to the

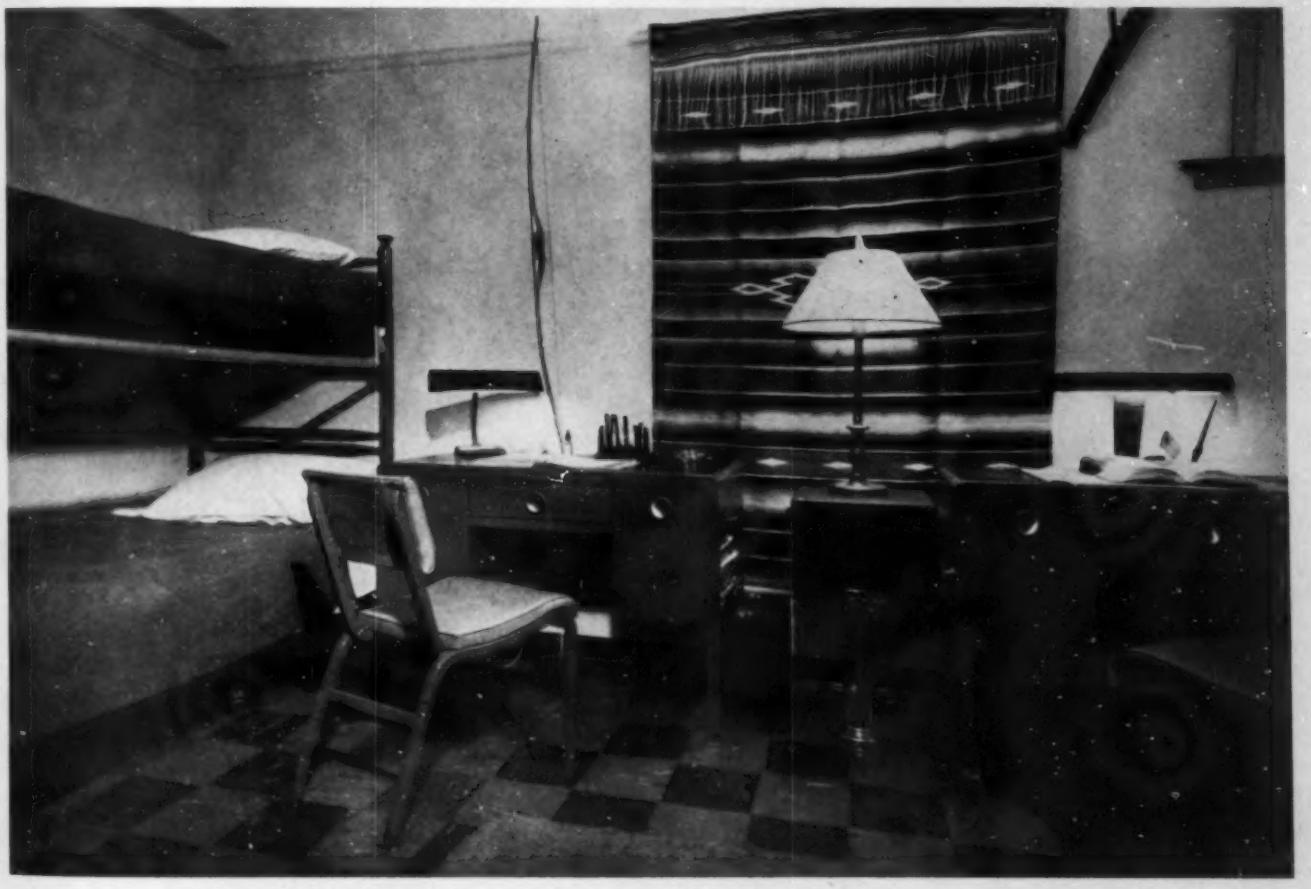


neatness of the room. Included in the conventional outlets next to the medicine cabinet, as well as in outlets in all of the bathrooms, are static eliminators so that electric razors will not interfere with radio reception. We depend on good lamps for reading and studying, so a sufficient number of outlets is included in all rooms.

Each room is equipped with metal study chairs with fabricoid seats, an easy chair, individual study desks (this permits larger variation in arrangement of room furniture and gives each student a chance to arrange his desk in the best position to fit in with his study habits), and a bed, convertible from single bed to double decker. Some students prefer their beds in a single bed arrangement and others as double deckers, so they are arranged in accordance with their requests. The beds have slat springs and innerspring mattresses.

In both the men's and women's halls we have standardized on metal furniture. Most of the metal furniture purchased in 1925-26 is still in use and much of it has been refinished only once and is in good condition, despite extremely heavy use during the war years.

The comfort and health of the students, the long-term maintenance of the building and the equipment, the daily cleaning, and the upkeep of the building are the things considered when designing and constructing residence halls at Wisconsin.



TWO VIEWS (above and on opposite page) of standard double room in men's halls at the University of Wisconsin. Bureaus and wardrobes are built in; the furniture is of metal.

HERE *Girls* LIVE GRACIOUSLY

HOWARD S. CURTIS
Director, Brown University News Bureau

BEHIND THE DIGNITY AND DURABILity of its Georgian Colonial architecture, Pembroke College's beautiful new residence hall, Andrews Hall, is as modern as this minute and as typical of the gracious way of life as its planners could have hoped.

Housing 248 of a total enrollment of 900 undergraduate women students at Pembroke (Brown University's coordinate women's college), Andrews is of a size and distinction to command national attention. It was built as one of the projects of the Brown housing and development campaign at a cost of slightly more than $2,000,000 and was opened officially in October 1947.

Using every inch of its four stories, mezzanine, basement and subbasement to provide the utmost in convenience, the building measures 345 feet long and 106 feet deep and joins two other Pembroke dormitories to form a U-shaped open court. Its Indiana limestone and brick, in the Flemish bond design, have been expertly blended with these buildings by the architect, Thomas Mott Shaw of Perry, Shaw and Hepburn, Boston. Continuity has been carried out inside the dormitories, too, by making through-hallways on several floors from Andrews into the residences forming the sides of the U—an architectural feat, considering the difference of levels on the rising ground.

Open to the street and faced by the three dormitories is a stretch of lawn and trees with paths leading up to a large bluestone terrace before the doors of Andrews. The terrace forms the ceiling of the residence's spacious 100 by 61 foot dining room, two stories high, with large windows facing onto the court.

On the other side of the building are a sunken garden and shrubbery, enclosed by a decorative brick wall extending well above the street level.

Andrews is architecturally divided into three parts: a main section and

SINGLE ROOMS measure 16½ by 10 feet. Students furnish own curtains, bedspreads, cushions and rugs.

DOUBLE ROOMS have two-side exposure. Serving as couches by day, divan-beds unfold for sleeping.

PAJAMA LOUNGES adjoin kitchenettes on each floor. They are furnished in a variety of gay colors.

KITCHENETTE-LAUNDRIES on each floor have steam driers to accommodate two large washes.

two wings. Students' rooms are on the mezzanine and all four floors, while each floor of each wing has its own special facilities. Interior decoration is striking throughout.

Entirely fire resistant, with a fire alarm system and extinguisher equipment, the building is of reinforced concrete slab and steel construction. At each end enclosed fire escapes, with specially beveled "non-panic" corners, eliminate the possibility of students being trapped in a rush.

Four main stairways, as well as two automatic passenger elevators and one service elevator, run the height of the building. The stairways are of steel with slate treads and landings, and their walls are done in green glazed tile. With an eye to both cleanliness and good appearance, the spacious corridors have been finished with a sheet rubber dado.

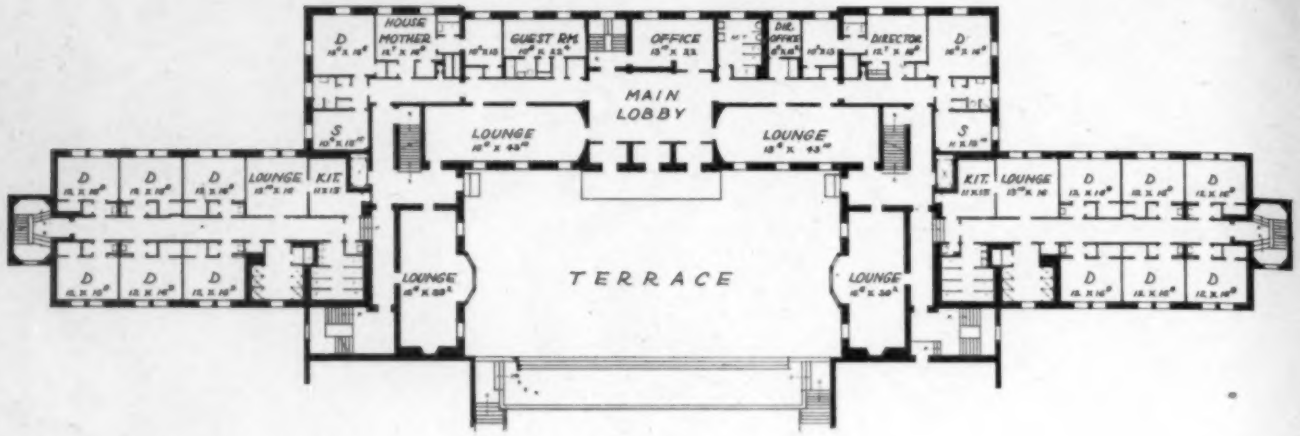
For snow and ice removal, the terrace is specially equipped with outlets for hot water impregnated with steam. The roof gutters in the downspout areas are electrically heated to prevent freezing. Under the all-metal cornices lie staging rings for efficient and easy use in exterior work.

The roofing is of slate on reinforced concrete roof planking, and a 40 by 74 foot area over one wing has been built into a flat tile sundeck available for all three dormitories.

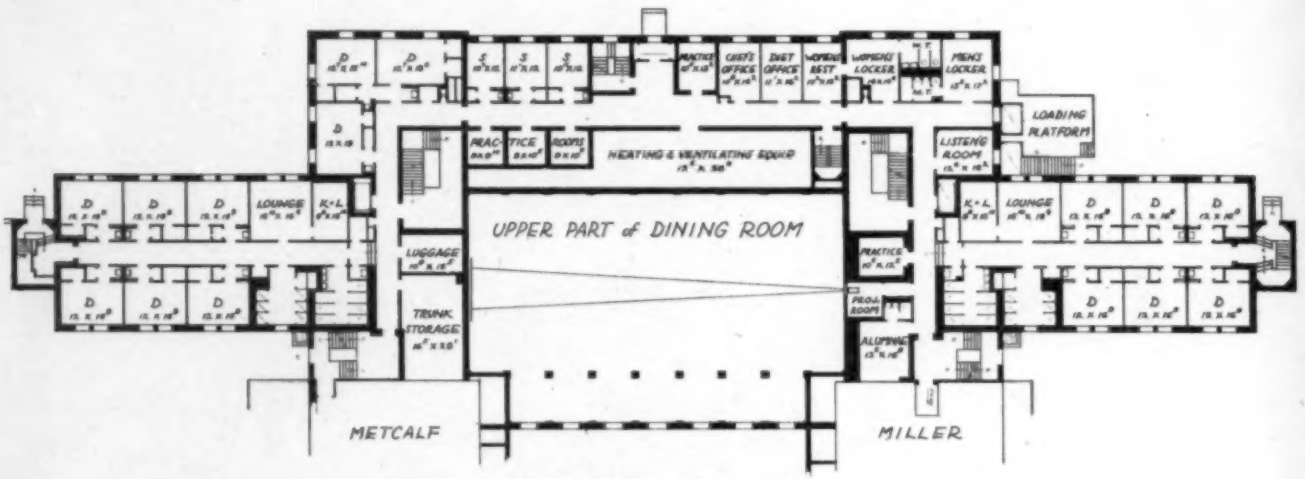
Interior partitions are of plaster and are supported on metal spring clips and furring channels that absorb the noise and promote good study and rest conditions. Door frames are of pressed steel with doors of single paneled steel.

Taking the building from the bottom up: the subbasement contains all mechanical equipment for plumbing, heating and electricity, the main Pembroke College oil generated heating plant providing the heat.

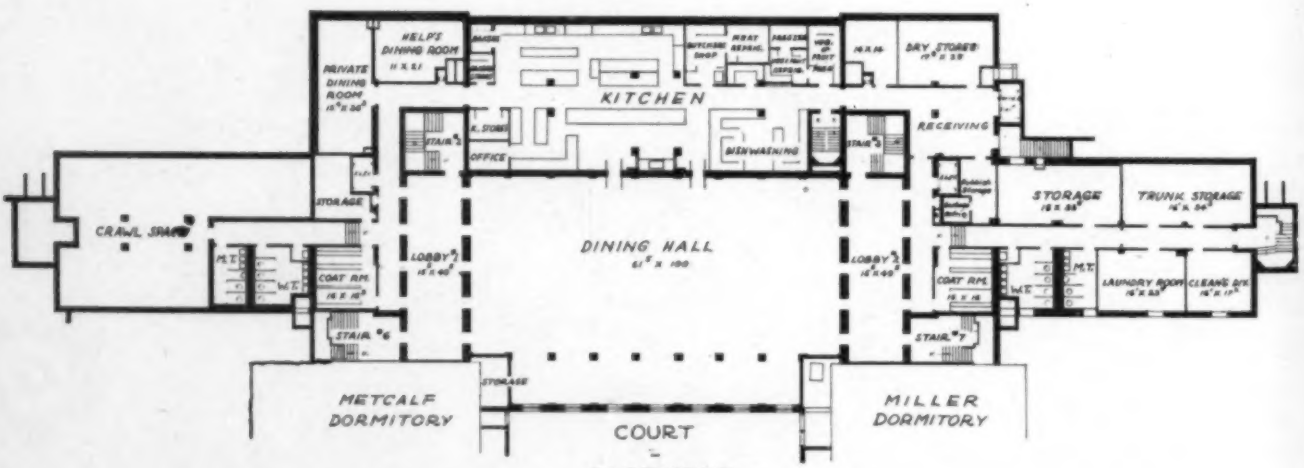
The basement figures prominently in the architect's plans with its high



FIRST FLOOR



MEZZANINE FLOOR



BASEMENT

dining hall rising into one side of the mezzanine. Seating 450, this hall is one of the university's largest. An ultramodern, superbly finished kitchen adjoins along the length of the dining hall, serving 1800 meals a day, including those it provides for another residence. Also on this level are a private dining room for special uses, lobbies and coatrooms at either end of the dining room to ensure the minimum of congestion, an employes' dining room, the laundry, cleaning equipment, and storerooms.

The dining hall is painted in a light green that matches the foliage in two large murals which decorate one wall. Made of French hand blocked wallpaper, "Scenic America," the murals are of the 18th century design, depicting New York harbor, West Point, Boston harbor, the Natural Bridge, and Niagara Falls. Indirect lighting and tall grooved columns emphasize the hall's size.

OUTSTANDING FEATURES

The two outstanding features of the 40 by 100 foot kitchen are the material and design of the facilities. Of stainless steel, they afford efficiency of movement and easy cleaning through the modernization of such obstructions as old-fashioned knobs, legs, faucets and switches. One-fourth of the kitchen space is used for the storage of vegetables, bakery goods, meats, frozen foods, dairy products, and garbage. The other three-fourths, used in the preparation of meals, houses a complete bake shop, vegetable preparation room, and such equipment as gas stoves; dish washers with condensing dehumidifiers to decrease heat; can washers; special pot sinks; butchers' tables and block; an electrical bone saw, electric choppers and dough mixers; steam kettles, also with condensers, and an ice cream maker, all in addition to modern versions of standard equipment. Hoods with grease filters cover many of these open facilities when they are not in use, and iron pigs grind up the garbage and flush it down the drains.

An item of special convenience and sanitary merit is the closed cabinet for glasses placed just inside the electric eye controlled doors between the kitchen and dining room. An automatic mechanical device brings the glasses to hand level as needed.

Capable of serving either waiter or cafeteria style meals, the kitchen is done in green tile with red tile floors and acoustically treated ceilings. Its staff numbers thirty-one.

The next floor up, the mezzanine, is partitioned into soundproof music practice rooms, a projection room for showing movies in the dining room, offices of the chef and dietitian, and an alumnae lounge. Besides wasting no space, these arrangements are admirably located for their special services.

On the ground or first floor, four handsome lounges, furnished in the traditional Georgian manner with floor-length windows, decorative mirrors, and colorfully upholstered furniture, look out onto the terrace. The furniture was chosen with special attention to quality and includes numerous comfortable chairs, divans with low arms, and plenty of tables.

While the wings are devoted to student rooms, the main section holds offices, guest rooms, and apartments for the two administrative staff members. The receptionist's desk, flanked by bulletin boards and lockboxes for mail, is installed immediately beyond a commodious oblong lobby.

The staff suites, with flooring of oak parquetry, include a living room, bath, bedroom and kitchenette, all in modern, smooth lined design.

Student rooms, of which there are 166 (82 doubles and 84 singles), are artistically painted in a variety of pastel colors. Darker tones are used on the south side of the building, lighter ones to the north. Average measurements for doubles are 16½ by 16 feet, for singles, 16½ by 10½ feet. All are equipped with built-in bookcases, roomy clothes closets, and private lavatories with medicine cabinets. Floors are of rubber tile and windows are plentiful, many of them with window seats.

The furniture for these rooms is modernistically designed and was chosen to suit the double duty the rooms will perform as both bedroom and study. It was specially manufactured to provide as much space and comfort as possible, while emphasizing attractiveness and adaptability.

All residents are provided with a divan-bed, desk, chest of drawers, small chest, armchair, desk chair, floor lamp, and desk lamp. All rooms have intramural telephones, concealed picture moldings, and combination chair rails and plug-in strips for the electrical outlets which are spaced at 18 inch intervals.

Regular features of each floor of each wing are toilet and shower rooms, a pajama lounge, and a laundry-kitchenette. Soundproofed telephone booths for outside calls and full length mirrors are placed in the corridors. Toilets, showers and one tub per section have been installed to provide ample facilities for everyone, even at the daily rush periods and on week ends. Walled in green glazed tile, with ceramic tile floors, the bathrooms also furnish the students with additional lavatories and special hair-washing apparatus. Bathroom fixtures are ceiling or wall hung to make cleaning easy.

Other special cleaning features are the incinerator shafts with self-closing, silent doors and the ducts for the vacuum cleaning system, both placed at intervals through the hallways.

MANY CONVENIENCES

The roomy kitchenettes have cupboard space, hot plates, and two-compartment, stainless steel sinks. A laundry convenience is a steam drier with 120 feet of rack space for the sole use of students in each section. For ironing, a wall recessed ironing board for each laundry can be swung horizontally out into the room. The pajama lounges, for late snacks, bridge games, and general community life, are decorated to match their various types of reed furniture.

Heating is accomplished by steam from the oil burners, using built-in convector-type radiation under the windows. For the lobbies, dining room, kitchen, lounges, laundries and corridors, indirect heating is used; fresh air is brought in, heated, filtered and reheated.

Andrews Hall cost approximately $1.18 per cubic foot of raw construction. Including furnishings, equipment, fees, land and landscaping, the total cost of the finished building was about $1.45 per cubic foot.

"New buildings are no substitute for good teaching," President Henry M. Wriston of Brown University has said. "But appropriate living conditions support and supplement good teaching, and good teaching needs every possible support.

"Brick and mortar are no substitute for inspired and devoted men, but better environment helps their efforts. If, therefore, we are to show forth a primary regard to the individual, if we are to insist upon his infinite value and emphasize his obligation to wrestle with infinite problems, we must create a fitting environment."

SIX GIRLS TO A SUITE

No Center Corridor Yet Centralized Control

WILLIAM M. INGEMANN
Architect, St. Paul

WITH HIGH CONSTRUCTION COSTS likely to continue for some time, it becomes increasingly important to consider all reasonable economies in the planning and construction of buildings. Many colleges have adopted the doubtful expedient of erecting temporary structures to meet this situation. This may be justified when the need for additional facilities is only temporary; otherwise well planned and permanently constructed buildings will, in the long run, prove more economical and satisfactory.

In the field of residence hall planning, certain basic economies must be applied if costs are to be held at anything approaching a reasonable level. One of these is the studied elimination of waste space.

The common arrangement of a center corridor with double rooms on each side is essentially an extravagant plan. The unit plan of rooms grouped around individual stairways is more economical to construct and has the added advantages of eliminating corridor noise, of increased fire safety, of greater flexibility in the use of the building, and of social gain through the breaking up of the dormitory population into smaller units.

A second economy, one which is less easily understood and which has an even greater effect on cost, is the economical use of materials. In a study of comparative costs of buildings made some years ago, I discovered that the lowest construction costs were obtained if the width of the building was held to less than 30 feet. This principle holds whether the building is constructed in one long strip or if, as in a residence hall, it is planned in units surrounding a courtyard or in wings extending from a central section. Such an arrangement allows a single line of columns down the center and an economical 15 foot span on each side for the floor construction. It also permits planning for a maximum amount of sunlight and air and for bath and toilet facilities directly accessible from each suite.

Until recently, application of these economies in unit planning was applied only to dormitories for men. This was because of the difficulty of providing adequate control of the various entrances generally considered necessary in women's dormitories.

The plan of the women's dormitory at Gustavus Adolphus College, St. Peter, Minn., represents a notable advance in this direction. All sections of the building are entered through one control point, but the rooms are arranged in suites accommodating six girls. Each suite consists of a living room, six individual study-bedrooms, and a bathroom. Gone are the corridors that generally served no purpose but to encourage and transmit noise.

Five residence halls were constructed at Gustavus Adolphus in 1946-47. They prove that it is possible to build permanent dormitories at a cost of approximately $2000 per student.

CONSTRUCTION DETAILS

GENERAL DATA: Residence hall for 200 women.

CONSTRUCTION: Fireproof construction; solid plaster partitions; aluminum windows; cement stairs covered with mastic tile.

FLOORING: Mastic tile.

WALLS: Casota stone with Indiana limestone trim; flat roof.

CEILINGS: Acoustic plaster.

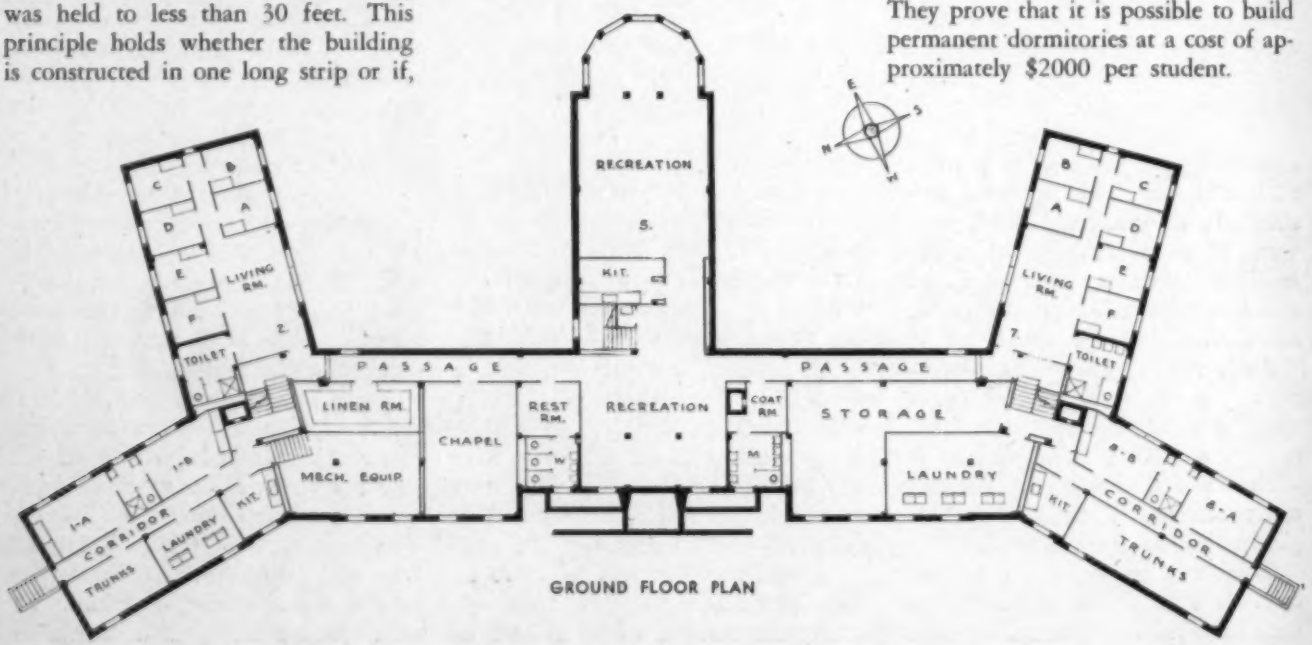
HEATING: Steam with cabinet radiators.

LIGHTING: Standard incandescent.

CALL SYSTEMS: Buzzer and return call system.

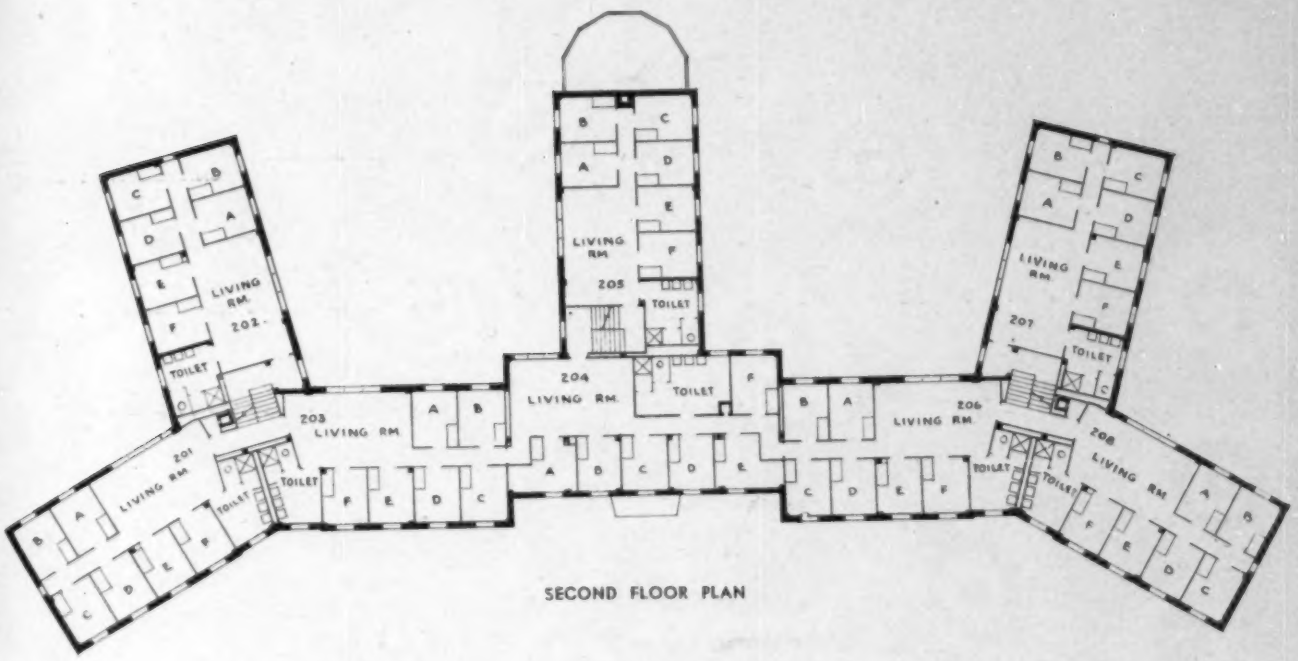
SPECIAL FEATURES: One central entrance with passages to three stairways. Single study-bedrooms. A lounge opening off the stairway and a toilet and shower room for each six occupants. Living quarters for the dean and assistant dean and a large common lounge and recreation rooms.

COSTS: General, $291,605; plumbing and heating, $53,845; electrical, $12,938. Total, $358,388.

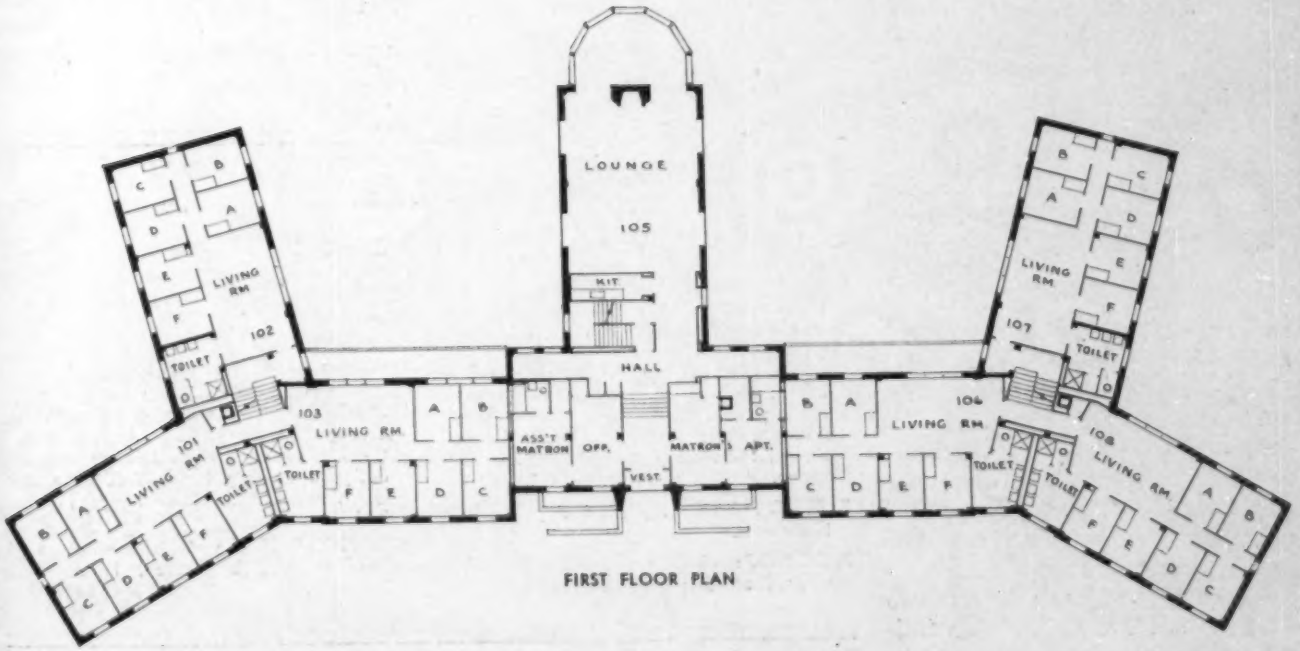


GROUND FLOOR PLAN

VIEW FROM NORTH WEST
WOMEN'S DORMITORY BUILDING
GUSTAVUS ADOLPHUS COLLEGE
ST. PETER, . . . MINNESOTA



SECOND FLOOR PLAN



FIRST FLOOR PLAN

Claremont Men's College

ROOMS WITH CAMPUS CONNECTIONS

No Center Corridor; Men Can Step Right Outdoors

DOROTHY CRANE ENGEL
Director of Public Relations
Claremont Men's College

IMMEDIATE FREE ACCESS TO THE OUT-of-doors is provided in the plan of the new residence hall at Claremont Men's College, Claremont, Calif. Each of the 32 bedrooms has an outside entrance. Second floor bedrooms are entered from outside covered balconies, and first floor bedrooms from the gallery below. Expansive windows also bring bedrooms and campus together.

The second unit of a four-building quadrangle is now under construction. Stark as these buildings are in functional design, simple plan and frankly exposed construction, they have already proved effective men's quarters as Appleby Hall, the first unit, pictured above, is already in use.

The elimination of central halls and the grouping of sleeping rooms about centered bathrooms, dictated by economy, have proved to be pleasant and quiet arrangements. Each group of four bedrooms shares a double bathroom equipped with two showers, two lavatories and two toilets. Each bedroom has direct access to the bath; each student, an individual medicine cabinet in the bathroom.

A partial basement houses the mechanical equipment, trunk storage, laundry, and linen storage. Additional rooms on each floor are available for linen, storage and for housekeeping.

Allison and Rible of Los Angeles are the architects. The cost of one residence hall for 64 students is approximately $163,000, exclusive of furnishings. The cost per square foot is $12.50; per student occupant, $2547.

Details of Construction

CONSTRUCTION: Designed to withstand seismic stresses. Concrete walls, floors, stairs, balconies and roof slab. Shingle tile roofing has moderate slope, hips at corners, and broad overhangs. Copper gutter and downspouts. Steel casement windows with bronze screens and venetian blinds. Balcony railing has heavy steel mesh panels. Individual plywood wardrobes with sound insulated backs and sides form cross partitions between bedrooms.

EXTERIOR WALLS: Concrete painted in two colors.

FLOORING: Bedrooms and balconies, colored cement; bathrooms, ceramic tile.

INTERIOR WALLS: Concrete and plywood painted; shower compartments tiled.

CEILINGS: Concrete beams and slabs painted.

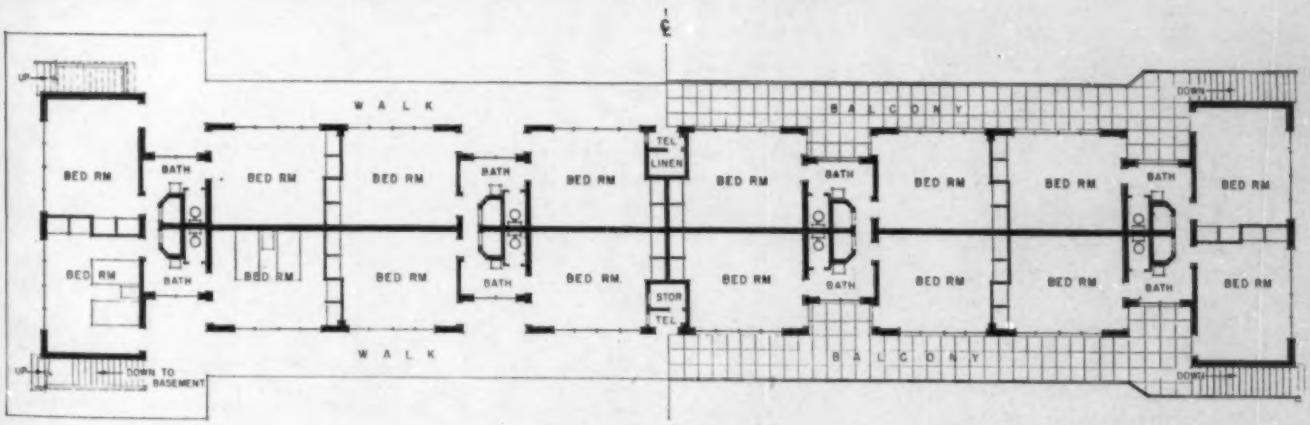
HEATING: Steam heated recessed convectors manually controlled; steam supply from college plant.

LIGHTING: Bedroom overall lighting from ceiling fixtures. Built-in bookcase and stand at each bed contains a specially designed reading lamp. Additional outlets for incidental floor lamps in each bedroom.

TELEPHONE: Public telephone on each floor serviced by student in adjoining bedroom.

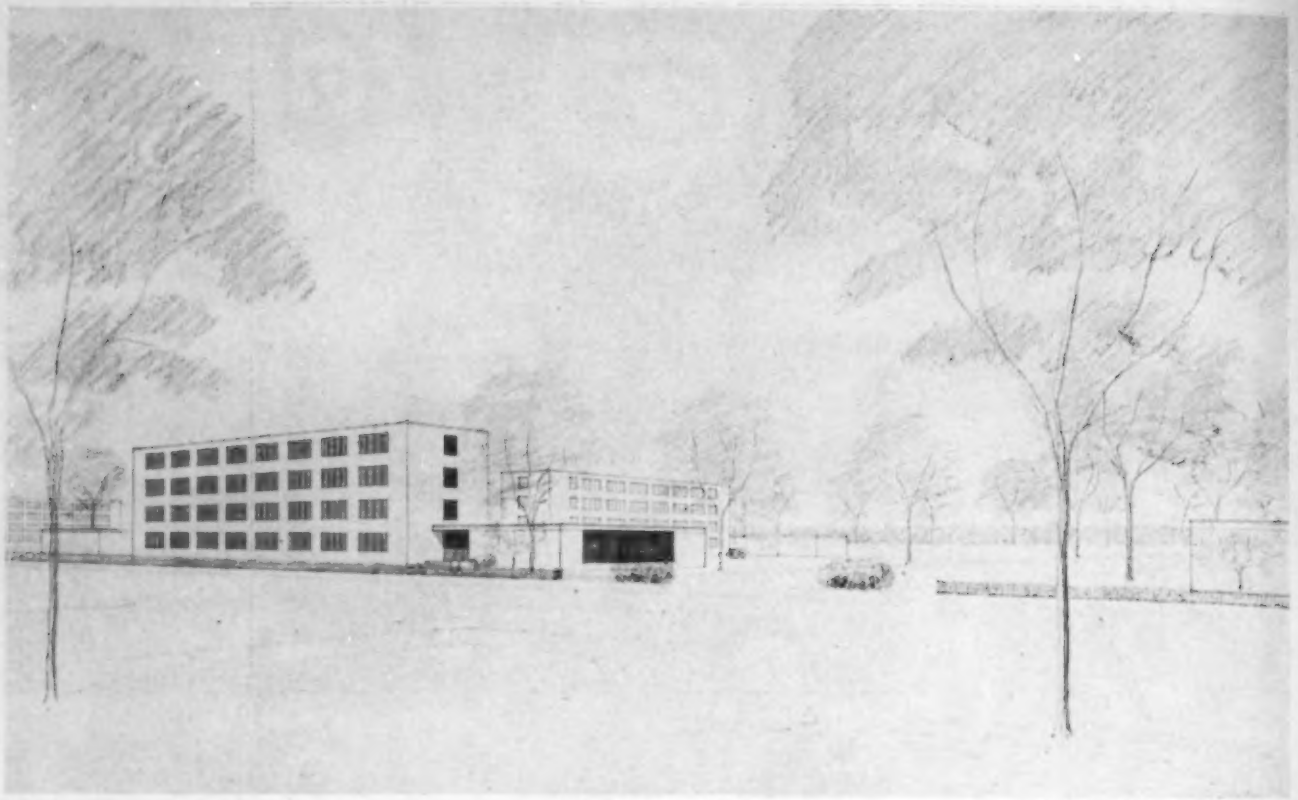
APPLEBY HALL, first of the four dormitories to be built, has a magnificent view of Mount San Antonio. Now a second hall is being built on the same plan.

IMMEDIATE ACCESS to the out-of-doors, which the floor plan below provides, is particularly enjoyed by the men. Each room gives onto a balcony or a gallery below as may be seen.



HALF PLAN AT FIRST FLOOR

HALF PLAN AT SECOND FLOOR



Illinois Institute of Technology

METROPOLITAN 1948—STYLED FOR MEN

RAYMOND J. SPAETH

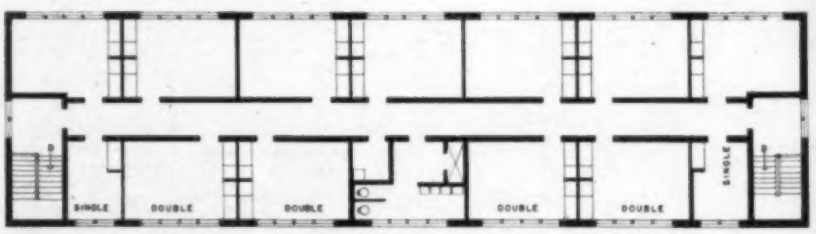
Executive Secretary and Treasurer
Illinois Institute of Technology
Chicago

A LONG-RANGE PROGRAM TO PROVIDE housing for students and staff in a self contained study, work and living area has been undertaken by Illinois Institute of Technology, Chicago.

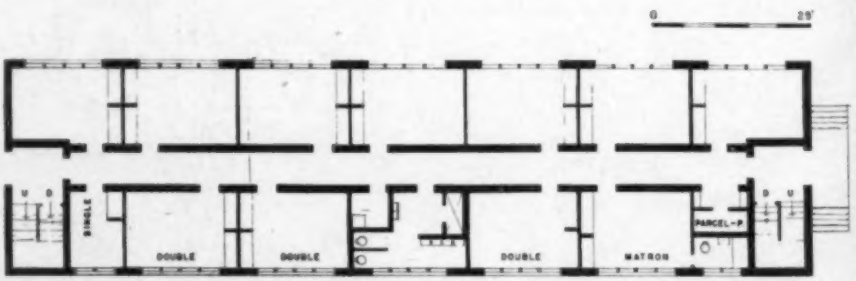
Two four-story residence halls of the type shown here will be ready for occupancy in the fall; another ten-story apartment building for married students is going up. Two more ten-story buildings are contemplated, as are ten more residence halls like the one pictured here and three more three-story walkup apartment buildings.

Quarters in each of the two residence halls nearing completion will consist of 51 double rooms, seven single rooms, and a matron's suite. The buildings will be fireproof. Flooring will be asphalt tile; ceilings, painted concrete slab, and walls, painted plaster. Heat will be furnished from hot water radiators from oil fired boilers in each building. They will cost $275,000 each.

Architects for these housing units are Skidmore, Owings and Merrill.



FOURTH FLOOR— SECOND AND THIRD FLOORS SIMILAR



FIRST FLOOR

BARGAINS IN FIRE SAFETY

MAURICE WEBSTER
Architect, Evanston, Ill.

THE PROBLEM OF FIRE SAFETY IN college residence halls or in any other building in which people sleep has its peculiar difficulties. In disastrous fires, experience has shown that occupants may be killed, often in bed, even where there is an adequate number of well located exits or where the building is of fire resistive construction.

As the great majority of people killed in these fires die of carbon monoxide poisoning, adequate means of alerting sleeping occupants in case of danger and of preventing the rapid infiltration of carbon monoxide is of prime importance.

Although no right minded person willfully places the importance of human life in a secondary position to the saving of property, the burden of fire safety has been left largely in the hands of the fire insurance industry, whose direct problem has been that of saving property. It has done a skillful and brilliant job in this direction.

A major technic in minimizing property fire loss has involved the principle of containing or "bottling up" the fire so as to retard combustion and localize it. While we can be quite successful in containing actual combustion, we do not seem to have the means of containing the gases of combustion, including carbon monoxide, and of preventing their infiltration throughout a building. A small percentage of this gas, combined with exertion or fright, has frequently caused heart failure.

If we cannot contain these gases, the obvious alternate is to exhaust them and to take them out of the building before they have passed through corridors and bedrooms with fatal results. This brings us into conflict with the established bottling up practice as developed to protect property. It remains a controversial issue.

A typical example of this controversy arises from a provision in many building codes that skylights over stair wells and elevator shafts shall be of plain glass so that if exposed to a hot fire the glass will break and form a vent to exhaust these gases of combustion and the excessive heat which would otherwise cause progressive combustion. It is conceded by those opposed to this emergency venting* that this provision has been a factor in the saving of many lives, but it is argued that it will not always work where the fire in the stair well is not hot enough or the building is very high. To use such an argument as a reason for omission of this provision would imply that we should not use sprinklers, fire resistive construction, or other safety measures on the grounds that they may not be necessary in the case of some specific fire.

*Bulletin No. 245, Mar. 20, 1947, National Board of Fire Underwriters.

VENTING OF STAIR WELLS

A traditional argument has been raised by the underwriters against the emergency venting of stair wells and elevator shafts. They contend that the enclosed stair well should be reserved as a place of refuge. The fact is overlooked that when the heat is great enough to crack the glass in a stair well, it is hardly a satisfactory place of refuge. A further disadvantage to this conception of a refuge is that a shaft rising through the full height of any building and served at each floor by a door, even if self closing and fire resistive, is inherently dangerous, especially if not vented.

When a fire has developed massive combustion, a great expansion of gases is created, both from expansion resulting from heat and from the gases generated by combustion, which may be as much as 150 times the volume of solid matter consumed. The atmosphere so produced is both very light and of an expanding nature. It will attempt to rise and will spread to any connected area in which there is a lower atmospheric pressure.

No practical functioning door is designed to contain any substantial pressure differential. Consequently, we must provide some adequate vent to carry poisonous gases out of the building and to relieve this pressure if we are to prevent their finding an outlet through corridors and bedroom windows, thus creating a serious hazard to life.

The wastepaper chute, with which college administrators are familiar, illustrates rather closely the principle of the vented stair well or elevator shaft. It is carried within a fire resistive enclosure, serviced by a door at each floor and is open at the top. When the wastepaper stored at the bottom of the chute is ignited, as occasionally happens, the heat and gases pass up and out of the building with no damage other than a possible discoloration of the chute doors from heat. If a door is partially open, turbulence in the flue may cause a small amount of smoke to enter the corridor, but in the main a current of air is drawn from the corridor into the chute, thus preventing infiltration of gas.

When combustion has reached no magnitude or when heat is subsiding, we arrive at a point at which smoke and heavy gas settle or stratify. At this time no significant pressure differential between corridor and shaft exists, and the normally fitting door is adequate to contain the fumes.

A great deal of study is being given to the problem of exhausting gas and heat. It may be done by power blowers or by gravity. These devices may be activated thermostatically or by barometric controls. It is possible that under some circumstances the best results may be had by using the photoelectric smoke detector.

It is difficult to generalize upon the best method of ventilating to promote

safety in a building. If this is to be done economically, the individual peculiarities of the building must be taken into consideration. Building codes often are a determining factor. On this account it is incumbent upon administrators to see that consideration is given to this subject.

It is often said that when safety to human life is at stake the cost in money should not be considered. To college administration such a philosophy is untenable. We can buy a degree of fire safety as we can buy many other good things that promote longevity. We are limited by our means and our ability to spend wisely, that is all.

Fire safety in any residence hall walks on two legs: (1) the proper design of the building and (2) a properly instructed and organized group of occupants.

The greatest bargain in fire safety is obtained through organizing and training. This bears directly upon the problem of quickly alerting sleeping occupants to danger. We cannot expect well ordered judgment to be extemporaneous in time of emergency. Monitors must be chosen and instructed in emergency duties. Some education in fire safety will enable occupants to recognize fire hazards and to eliminate them through good housekeeping, avoidance of highly flammable decorations, dangerous smoking habits, and promiscuous makeshift wiring. Such a study might be regarded as a legitimate part of college education.

Several organizations, such as MacComber in Boston or the National Safety Council in Chicago, are prepared to give disinterested advice in organizing personnel for fire safety.

GET SET FOR RESIDENCE HALL COUNSELING

CALVIN S. SIFFERD

Supervisor of Counseling in Residence Halls
University of Illinois

WITHIN THE NEXT DECADE MILLIONS of dollars will be spent for new residence halls. With these dormitories will naturally come an increase in the number of certain types of campus problems and personal problems for the residents. An adequate residence hall counseling program, thoughtfully conceived and skillfully executed, will do more than any other single agency in keeping these problems under control and will act as a potent force for good in the lives of the residents.

Residence hall counseling began at the University of Illinois shortly before World War II. With the growth of the university, the residence hall counseling program tried to keep pace. It set up objectives, hired older undergraduates and graduate students to work as residence hall counselors, and conducted training courses and in-service programs for them. While recognizing the faults and criticisms of the program, those responsible for the operation of the residence halls and for the welfare of the residents wondered how they would have managed without the counseling program.

Last summer, in an attempt to evaluate our program, I sent a questionnaire to 500 unselected colleges and universities.

One hundred and twenty-five schools returned the questionnaire and ninety others, not returning the questionnaire, wrote letters describing their program. The 125 questionnaires came from forty-one states with only Delaware, Idaho, Montana, New Jersey, North Dakota, Rhode Island, and South Carolina not being heard from.

In considering this study only the information disclosed by the 125 schools returning questionnaires will be taken into account. These schools and their enrollments may be summarized as follows.

Enrollments	*No. of Schools*
Less than 500	11
501 - 1000	24
1001 - 2500	45
2501 - 5000	20
5001 - 10,000	16
Over 10,000	9

Total enrollment of median school.....1732
Number of men in median school.....1132
Number of girls in median school..... 600

Questions asked on the questionnaire and a summary of the major responses follow. Not all schools answered all questions, hence the total responses to each query varies.

1. *Do you have a residence hall counseling program?*

Eighty-one per cent answered affirmatively. However, concepts of a counseling program vary from school to school. Many added marginal notes, such as "for freshmen only"; "for women only"; "deans and head residents"; "house mothers."

The programs of most schools are built around head residents, hostesses, superintendents or house directors, with comparatively little attention given to student counselors working with fellow students.

Of the 125 schools returning questionnaires, seventeen coeducational colleges have counseling programs in women's residence halls only, and four coeducational institutions indicate a counseling program in men's residence halls only.

The types of persons employed in counseling programs are as follows: staff, faculty, house mothers, and house directors, 22 per cent; graduate and undergraduate students, 16 per cent; undergraduates only, 13 per cent; graduates only, 6 per cent. No indication as to type of staff was given by the other respondents.

2. *Is this program connected with your student personnel office? If so, how?*

Of 108 answers to this question, 72 per cent said yes. To some schools, such an office is one prepared to help the student with problems ranging from the psychological and personality maladjustments to that of selecting the curriculum in which he may seem to have the most chances for success. To other schools, the term "student personnel office" seems to mean almost

any office on the campus that deals with students. Sixty-nine of the colleges responding connect residence hall counseling programs with the student personnel office, as follows: dean of men and dean of women, 20 per cent; dean of students, 17 per cent; dean of men, 13 per cent; dean of women, 13 per cent; personnel director, 7 per cent; other persons, 30 per cent.

3. *What are the objectives of your residence hall counseling program?*

The objectives listed are: personal, 29 per cent; social, 19 per cent; academic, 18 per cent; normal adjustment to college life, 12 per cent; orientation, 5 per cent; miscellaneous, 17 per cent.

It would seem that women's schools tend to stress the social aspects of a counseling program; more men's schools specifically mention conduct.

4. *Who selects or hires the counselors?*

To this, 104 respondents replied: president, alone or with others, 33 per cent; dean of students, alone or with others, 16 per cent; dean of women, 14 per cent; dean of men, 12 per cent; other persons or agencies, 25 per cent.

5. *Which of the following do you consider as qualifications for a residence hall counselor?*

Replies were as follows: acquaintance with extracurricular activities, 100 per cent; acquaintance with administration of university, 94 per cent; slightly above average scholastic ability, 60 per cent; special training for counseling work, 53 per cent; concurrent enrollment in counseling course, 18 per cent. The average age listed as most desirable was 26 years; the average of years' residence on the local campus or any campus varied from one to five years.

6. *What do you consider the duties of residence hall counselors?*

The returned questionnaires listed: help residents develop ability of making rational constructive adjustments for themselves, 100 per cent; help stimulate the individual resident's social life, 82 per cent; help activate residence hall social activities, 79 per cent; act as a proctor by reporting to the proper authorities misdemeanors, violations of university regulations, and misconduct interfering with the proper operation of the halls, 55 per cent; act as tutor by aiding students with lesson preparations, 16 per cent; supervise residence hall study halls, 12 per cent.

7. *What is the initial contact between your residence hall counselor and the resident?*

Eighty-six schools tell of eighteen methods by which counselors make the first contact with residents. Forty-three per cent of them mention, "Counselors are present when students arrive in halls and help them get settled."

Fifty-nine per cent have special meetings at which counselors are officially introduced.

8. *How do you introduce the program to the individual?*

Of the 62 replies to this question, 20 per cent mentioned correspondence, 16 per cent, freshman or orientation week; 14 per cent by the counselor introducing himself and the program; 11 per cent, by private conferences; the rest, in various ways.

In introducing the program to residents as a group, house meetings are the favored method, followed by an orientation week mass meeting.

9. *Do your counselors assist in "checking in" residents at the beginning of each term?*

Eighty-eight replied to this question, with 74 per cent answering in the affirmative. Of these 63 per cent work with the management to show students to their rooms, and 18 per cent stay at the registration desk and hand out keys. Other means also are suggested.

10. *Are your counselors voting members of the house organization?* Answering, 92; yes, 36 per cent; no, 64 per cent.

11. *May your counselors hold office in the house organization?*

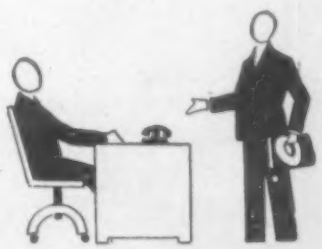
Answering, 92; yes, 22 per cent; no, 78 per cent.

12. *May your counselors take part as a member of a team in the house athletic program?*

Answering, 87; yes, 54 per cent; no, 46 per cent.

13. *Do your residence hall counselors aid residents in the preparation of study lists or courses to be selected by the resident in the next semester's work?*

Answering, 91; yes, 37 per cent; no, 63 per cent.



14. *What records do your residence hall counselors employ?*

Of those replying, 100 per cent use a personal information sheet or questionnaire; 52 per cent, a rating for appraisal scale; 52 per cent, an anecdotal record for a specific counseling problem; 34 per cent, other records.

15. *What does the counselor know about the resident before his first contact?* Fourteen, or 18 per cent, said counselors know nothing; 13, or 16 per cent, said, "All that is on application for college entrance." The remaining 66 per cent listed nineteen sources of information.

Twenty-five per cent of the 57 who answered get this information from the dean's office; 16 per cent use the personnel and/or the registrar's office; 14 per cent use the residence halls' office; 45 per cent listed thirteen other sources of information.

16. *What does your counseling program attempt to accomplish?*

All of the respondents attempt accomplishments in house organization and effective study habits. Ninety-eight per cent aim at promoting social activities; 91 per cent, improvement in personal appearance, speech, manners and dress; 89 per cent, student government; 69 per cent, intramural athletics; 64 per cent, religious work; 61 per cent, committee work; 46 per cent, vocational choices.

17. *Do you try to acquaint the resident with his abilities and potentialities? If so, how?*

Of the 90 replies, 70 per cent make such effort. Use of tests and formal or informal conferences with counselors are the methods most used.

18. *When you encounter passive or antagonistic attitudes to your counseling program, what methods of combating these attitudes do you have?*

Seventy replies were received; 14 per cent mention referral to college counselor or dean; 14 per cent say it varies with the individual; 13 per cent mention interviews, referrals, student government discipline, group pressure, and planted suggestions among group leaders; 11 per cent talk with students involved, asking for constructive criticisms and explaining and selling the program; the rest use various methods.

19. *Do you have any means of evaluating your program?*

Answering, 74; yes, 38 per cent; no, 62 per cent.

Six schools report that they attempt to evaluate their own program through periodic meetings with the counselors. Another college tries to judge the efficiency of the program by observing the residents in the areas of social activity. Others judge the program through the eyes of the student body, some by questionnaires given to the students, and others by general campus reaction.

20. *Do you have any means of evaluating your counselors as to whether or not they are individually doing a good job?*

Answering, 73: yes, 67 per cent; no, 33 per cent.

Respondents to the ratio of 23 per cent declared that students do the evaluating by comments, reactions, opinions and interviews; the same ratio judge individual performance by the observable effects in regard to students' study habits and activity. The person in charge of the program does the evaluating in 13 per cent of the institutions reporting. Other methods are used by the remaining schools.

21. *Do you have specific records to which you can refer for substantiation of the worth of your program?*

Answering 70; yes, 21 per cent; no, 79 per cent.

22. *In your estimate does it appear that your counselors are of the service to the residents to the extent hoped?*

Answering, 81; yes, 74 per cent; no, 26 per cent.

23. *Are your counselors used as "information bureaus" by the residents?*

Answering, 90; yes, 84 per cent; no, 16 per cent.

24. *What is the attitude of your residents toward the counseling program? Is it favorable or unfavorable?*

Answering, 89; favorable, 79 per cent; unfavorable, none; passive, 21 per cent.

25. *How many residents does each counselor work with?*

Answering, 86; greatest number of residents per counselor, 200; fewest residents per counselor, 6 to 10; average, 42.

26. *Are residents assigned to the counselors?*

Answering, 90; yes, 80 per cent; no, 20 per cent.

27. *May the resident choose his counselor?*

Answering, 83; yes, 23 per cent; no, 77 per cent.

28. *What sort of physical division of residence units do you employ in with each resident each semester?*

By house, 47 per cent; by floor, 27 per cent; by section, 26 per cent.

29. *Is the counselor supposed to have a specified number of interviews with each resident during the semester? How many?*

Four schools require at least one a semester; five report two. Others say from "four to six"; "one formal, many informal"; "one each week"; "no special number"; "three with freshmen; with upperclassmen when on the deficiency list, maladjusted or in need of aid."

30. *On the average, how much time do you expect each counselor to devote to counselor's duties?*

The median school expects its counselors to devote slightly more than ten hours per week to such duties. The least expected was one to five hours, and the most was twenty to twenty-five hours per week.

31. *Do you have a room set aside for counseling purposes only?*

Answering, 83; yes, 30 per cent; no, 70 per cent.

32. *If the counselor makes no effort to go out and make contacts with residents but remains in the counselor's room and awaits the callers who may seek a counselor, please indicate the amount of time ordinarily spent in such contacts.*

Statements varied from "indefinite," "we get a new counselor," one-half hour per person per semester" to "whatever needed."

33. *What other university departments offer counseling or guidance services other than the residence halls' counseling program?*

Answering, 236; faculty counselors, 13 per cent; deans of men and women, 12 per cent; academic counseling program, 7 per cent; other (35) agencies.

NO UNIFORM PLANNING

Of the many facts brought out by a study of these questionnaires the one most apparent is the lack of any semblance of uniform thinking, planning or execution of residence hall counseling programs among the 125 schools, yet all seem to recognize the worth of a functioning program however poorly it may be organized or how indifferently it may be operating.

There seems to be a need for more constructive effort among the colleges and universities, meetings of the personnel responsible for residence hall counseling where mutual problems may be discussed and plans made. There also seems to be a dearth of printed material relative to residence hall counseling, material that would be of help to schools starting such a program and useful in helping to clarify the thinking of those already in the midst of a program.

Lastly, the program needs to be given a greater stature as a positive agency for good. Too often the residence hall counseling program finds itself either a football or an agency, considered by other campus agencies (agencies that should find the residence hall program and their own program mutually compatible) as illegitimate.

Write for Volume Index

If you bind your volumes of College and University Business you will want the index to Volume 4, covering issues from January through June 1948. Continued paper shortages prevent its publication in the magazine. Send requests to 919 North Michigan Avenue, Chicago 11, Ill.

AN INAUGURATION TAKES A HEAP OF PLANNING

C. MAXWELL PLAISTED
Director of Public Relations
Keuka College

A PROMINENT TRUSTEE WOULD BE overlooked. A generous donor to the college would be forgotten. A number of guests would feel slighted or personally insulted by unpleasant incidents. The whole event was certain to slip into chaos resulting in confusion, anger and open strife. The opportunity to do a fine job of public relations for the college would backfire. I hoped the letter containing my dismissal from the college staff would not be too rudely worded.

These thoughts and many similar ones haunted me, as chairman of the committee to inaugurate Dr. Katherine Gillette Blyley, the first woman president of Keuka College, Keuka Park, N.Y.

Somebody was forgotten, someone did feel slighted or insulted, but I never learned who they were. These few never emerged above the placid surface of the event.

Planning and supervising an inauguration is a tremendous task, regardless of the size of the institution. It necessitates that one contemplate the forest as a whole and yet not overlook one single tree, bush or shrub in that forest. If possible, the person upon whom the lion's share of the responsibility must fall, the chairman, should be freed of all other responsibilities during the months immediately preceding the inaugural.

Planning must begin with a basic program formulated by the president. President Blyley decided upon the following program: (1) concert Friday evening, October 3 (mainly to provide a special event for local friends, since our dining facilities would only accommodate out-of-town guests); (2) luncheon, Saturday noon, October 4 (no speeches); (3) ceremonies beginning at 2:30 p.m.; (4) tea at president's home following ceremonies. We also decided that if it was worth doing, it was worth doing right. At this juncture expenses could not be estimated much beyond the printing of invitations.

I was given the privilege of naming my own committee, the importance of which cannot be overestimated. No honorary or ex officio members were included; only those were named who I believed were best qualified to handle the various responsibilities.

Committee members were designated as follows: reception chairman; social chairman; traffic and housing chairman; chairman of delegates; financial chairman (business manager). and student chairman. It was unnecessary for this committee to function until a month before the event.

The first step in planning was the preparation of an invitation list. This was divided into two main groups, delegates and guests. Under delegates

were included selected colleges, learned societies, alumnae club representatives. Under guests were included alumnae, friends and benefactors, recipients of honorary degrees, trustees, personal friends of the president and others, local friends of the college.

INVITATIONS MAILED

A rough estimate of numbers was made on June 15, and the order for invitations, return cards, and other material was placed with the printer for delivery on August 1. Envelopes for this material were procured immediately so addressing could begin, even as the lists were being compiled.

Lists of the invited in all categories must be prepared. To avoid duplication, a master alphabetical list including all categories is necessary, for the same person's name may come from several sources.

Mailings to delegates began about August 10, and to guests and alumnae about August 25. Enclosed with the invitation to the ceremony itself were a card listing the time and place of events and a small folder giving the location of the college on a map and indicating availability to bus, train, air and automobile travel, with schedules. Highways were numbered and adequate directions given.

Enclosed also was a reservation card asking that visitors check whether they wished overnight accommodations and luncheon reservations, whether they planned to attend the Friday evening concert and the tea at the president's home, and asking the approximate time of arrival and mode of transportation. A return envelope addressed to the chairman of the inaugural committee was also inserted so that all replies would funnel through one office. The request was made that all cards be returned by September 12. (Only about 50 per cent were actually in at that time.)

We required more information from delegates than from guests, and the alumnae luncheon was in a separate dining room, so a different card for each category facilitated sorting upon receipt. Local friends received the regular invitation and a special one to the Friday night concert.

The first meeting of the committee was held early in September, at which time members were informed of the general plan and of their responsibilities. By this time, having discussed all phases of the affair during the summer with everyone from the president to the maintenance staff, we had a fairly good idea of what we wanted. Committee members were to work out details in each case, submitting plans to the chairman. All expenditures were to be cleared through the business manager.

When the cards were returned, the following lists were made for the information of committee members: (1) all delegates for the chairman of delegates; (2) guests and a duplicate of delegates for the reception chairman; (3) luncheon guests (delegates, guests and alumnae) for the social chairman; (4) those wishing housing, and arrival time and mode of transportation, for the housing and traffic chairman.

After September 12 daily memorandums to each committee member gave additions and withdrawals.

DELEGATE CARD

PLEASE RETURN TO KEUKA COLLEGE BY SEPTEMBER 12, 1947

Name of Institution	Alfred University
Date of Founding	1836
Name of Representative	J. E. Walters, President
Address of Representative	Alfred University, Alfred, N.Y.
Degrees	B.S., M.S., Ph.D.

Please check

Concert, Friday evening, October 3	
Overnight accommodations, Friday, October 3	
Luncheon for official delegates, Saturday, October 4, 12:15 p.m.	✓
Tea, President's House following Inauguration Ceremony	✓
Time of arrival	12 noon
Mode of transportation	Auto

Favor of a reply is requested by September 12.

PLEASE BRING ACADEMIC COSTUME

Delegate, guest and alumnae cards are somewhat similar, the information sought at the left of the broken line appearing on the delegate cards only.

Approximately ten days before the inauguration, letters were mailed to all delegates who had replied to invitations, giving instructions on where to register on arrival and informing them that final instructions would be given at that time. This served to cut down letters of inquiry from various delegates.

The reception chairman had charge of the reception desk and selected thirty students to serve as guides. They were posted at strategic points about the campus, took the initiative in introducing themselves and asking to be of assistance to all who entered the grounds or buildings, and assisted in parking. Each delegate and guest on arrival was given an envelope containing instructions, luncheon ticket, table number, and name of hostess at his table.

The social chairman prepared the menu and dining rooms. Faculty members, asked to be hosts at the tables, were given in advance names of those who would be at each table. Each host became familiar with the names of guests at his table and made the necessary introductions.

TRAFFIC AND HOUSING PLANS

The traffic and housing chairman, with a list of modes of travel, had a good estimate of the parking space that must be provided. He also knew the approximate number who would arrive by bus and train. Taxis met all buses and trains on Friday evening and Saturday. He contacted the state police and the sheriff's office to obtain parking assistance on the campus for Saturday.

With a list of those who would need housing, he surveyed all hotels, tourists' homes, and private residences where rooms might be reserved and made the necessary reservations.

That the line of march might be formed accurately and quickly, chairs were placed in a double line in the main hallway in the exact order that delegates would march. On the back of each chair was taped a card identifying the college, learned society, or alumnae club of the delegate. Saturday morning as new delegates came, or as word was received of cancellation, chairs were changed to keep the line of march accurate. The college delegates formed in chronological order of founding of the colleges.

Academic regalia had to be ordered for some delegates. Delegates, upon arrival, placed their hoods and gowns

on the chair they would occupy to form the procession, thus eliminating a checking room jam at the last minute. A loud-speaker system was set up to summon delegates from the dining room to form the line of march and to make necessary announcements.

HANDLING PRESS AND RADIO

Handling the press and radio for such an event is a job in itself. Key feature writers and editors were invited from a number of newspapers and radio stations, invitations were sent to area editors of weekly papers, and I personally traveled to the editorial offices of those dailies with which we work closely to deliver invitations and to make arrangements to care for reporters and photographers.

All newspapers in central New York were given adequate information before the inauguration, and every effort was made to assure a large press representation for the inauguration itself.

A special room with typewriters was marked off in the main building and was available to the press all day. A telephone was at hand. Of course, the usual advance copies of speeches and corrected lists of delegates went to the newspapers.

A section of chairs for the press was reserved at the ceremonies. This was to the immediate right of the rostrum and was easily accessible to the photographers so they could shoot pictures without disturbing delegates or guests.

Press tables at the luncheon were near the president's table. I occupied a seat at one press table, and a chart of the seating arrangement was supplied me. Thus reporters and photographers were able to locate a particular individual for a statement or news shot with a minimum of confusion. One should be sure to set up an extra press table. Some press representatives arrive late, minus tickets or unannounced. I recall one guest who was overlooked in a seating arrangement, and he was pleased to be seated at a press table.

Full coverage by the press is most important for such an event. As every public relations man knows, bigger and better articles will appear if staff reporters are assigned to the event. It also means fewer papers for the public relations man to handle himself.

From 11 a.m. on I was constantly with press representatives, answering questions, arranging pictures, and satisfying every whim, so my committee had to function during those hours. If an institution has no public relations or publicity officer, some member of the staff thoroughly acquainted with every phase of the college and the event itself must be assigned to work with them and cheerfully do their bidding.

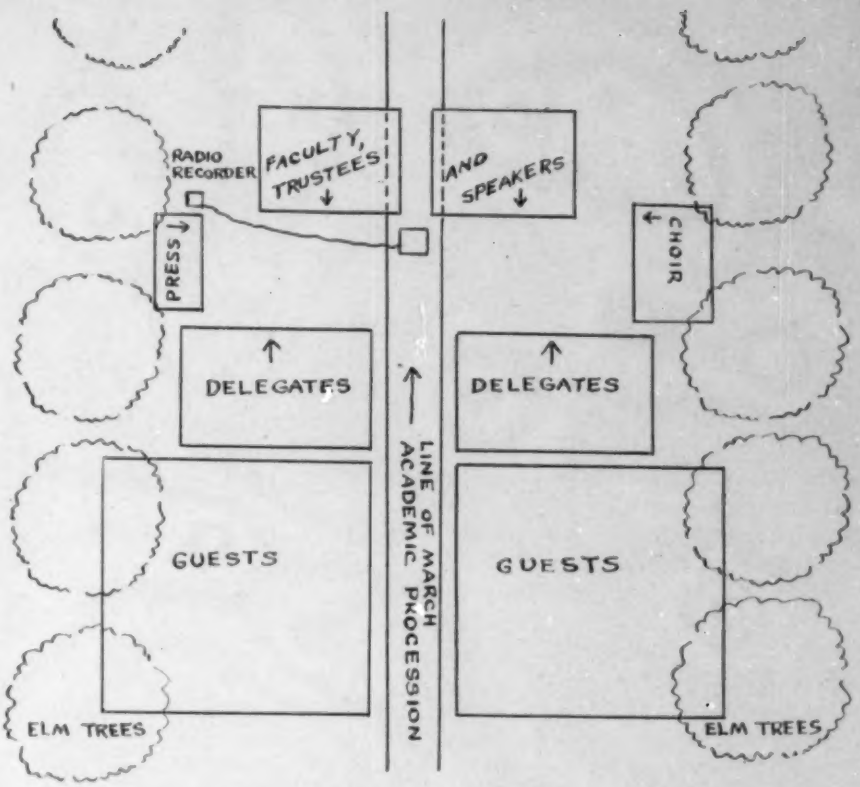


Diagram of seating arrangements. Except those for guests, all seats are reserved. The press position gives photographers easy access to rostrum.

Arrangements were made with the printer for printing the program listing delegates two days before the event—so this was complete and accurate.

All buying and financial affairs were handled through the business manager. He set up an original budget, which was checked as the event developed. The cost was approximately $2000, not including the labor of those on the regular staff. One student, a skilled stenographer, was hired for the summer months to handle lists, mailing and correspondence.

Thus the planning. The event went off without a hitch. Good weather allowed us to hold the ceremonies outdoors, but alternate plans had been made to use the auditorium if necessary. The academic procession, scheduled for 2:30 p.m., began at exactly that time.

Naturally, it is impossible to list the number of annoyances, inquiries, correspondence and other details involved, but they are to be expected in any major event. As I look back, they were infinitesimal, owing to careful planning and a committee that really functioned. I was able to avoid a case of stomach ulcers.

FAN MAIL APPRECIATED

Perhaps the greatest thrill of running such an event is the appreciation of guests who really enjoyed themselves. I quote the following from a letter which is typical of many received:

"Permit me to thank you, and through you all the others connected with Keuka College, for your hospitality on the delightfully memorable occasion of President Blyley's inauguration on Saturday last.

"All the arrangements for the entertainment of your guests were so extremely well made, and the ceremony itself was at once so charming in its setting and so dignified in its conduct that Mrs. Durfee and I agreed that we had never attended a more pleasant and interesting occasion of the sort

Sincerely yours,
WALTER H. DURFEE
Acting President, Hobart College"

TEST WHEN YOU BUY

D. H. PALMER
Research Director
Hospital Bureau of Standards & Supplies

IN THE OLD DAYS THE SUCCESSFUL horse trader had to know more about horseflesh and horse psychology than all other horse traders with whom he did business. Shrewdness was one of his most important characteristics. He wasn't above ascertaining by devious methods the defects of another's horse or of covering up the major faults in his own animal. And he knew as much about the psychology of his fellow horse traders as he did about that of horses.

While the analogy between horse trading in years gone by and purchasing for an institution today cannot be extended too far, they do have several things in common. Too often the essential facts about a product are not given to the buyer. The good qualities are amplified, and the poor qualities are never mentioned by the vendor.

In exchanging their institutional dollars for commodities, purchasing agents are at an even greater disadvantage than were our ancestral horse traders. Technical knowledge of materials and engineering know-how are almost the exclusive property of the producer. The purchasing agent who tries to outsmart the vendor of a product without adequate information is sure to get the worst of the bargain.

Our whole economy has been built on the production and selling of goods, and comparatively little attention has been given to the problem of purchasing them. Everything sold must be bought, but the amount of time and money spent on selling is several hundred times greater than that spent on purchasing.

The purchasing agent is forced to resort to elaborate procedures in order to find out the basic facts about the product he is buying for his institution. Industry assumes a paternal attitude toward the great buying public and has been successful in establishing the conception that nationally sold brands are in every way perfect and that their quality is not to be questioned. The buying public is frequently told that it is a little nonsensical to talk about such things as grades for canned goods, standards for sheets, and quality specifications for paint.

MEANING OF STANDARDS

While buying by quality standards and specifications has been a procedure long followed by many governmental agencies, institutional buyers are only beginning to realize the protection that this method affords them in their purchasing. When placing an order for a given product, no buyer can possibly keep in mind all the technical facts that are required to assure high performance for a particular end use. The buyer can protect himself only by determining what his requirements are and then defining them in terms that cannot be misinterpreted.

APPLICATION OF STANDARDS

In the long run, purchasing by exact definitions of quality or specifications will save time and money and will improve the quality of the delivered goods. However, it is not an easy procedure to inaugurate. A specification must be concise, technically accurate, and closely related to durability and performance in use. Specifications for the simplest product are complex.

WHY TESTING IS NECESSARY

It is not enough to determine the exact requirements of a given product, prepare a specification covering all essential requirements, and send out bids and place the order on the basis of this specification. Vendors have an unfortunate habit of disregarding such requirements unless it is known that the delivered product is going to be tested. Regular check testing is necessary if the quality of the delivered product is to be maintained.

HOW TO CHECK QUALITY

Schools and colleges are often better equipped than other institutions to make the necessary tests required by most specifications. Certain schools, it is true, do not have the personnel and laboratory facilities to test samples of every delivery. However, there is no justification for neglecting to sample shipments and to make examinations that will reveal lack of conformity to type, size, quantity and readily observed quality factors. Purchasing agents who have not done this will be surprised to learn how many of the factors covered in a specification can be checked upon with considerable accuracy by more or less casual examination and simple tests.

Let's consider some of the problems that relate to the maintenance of quality for a few widely used products.

SOAPS AND CLEANING COMPOUNDS

All of the major types of soaps used in institutional laundries are covered by specifications established by the American Society for Testing Materials. Most of the large soap companies will readily guarantee their products to meet these standards. Testing for dry soap content, excessive alkali, titer, and builders and impurities is not an easy matter. Only exacting laboratory methods will suffice in these cases. However, most of the brands of industrial laundry soaps meet the A.S.T.M. standards. Built soaps are likely to show wider variations in quality than do other types. Some manufacturers add considerably more builders than others, and one should not pay soap prices for inexpensive builders.

Deception is more likely to be practiced in selling liquid soaps. All soaps, but liquid soaps particularly, should be checked and purchased on dry soap content. We have found in our tests prices ranging all the way from $0.38 per pound of dry soap up to $1.40 per pound with no significant difference in quality.

From a paper presented at the National Association of Educational Buyers convention, May 1948.

There are no such things as all-purpose cleaners. Cleaning compounds should be bought for specific end uses. When an abrasive cleaner is desired, prices should be based on the cost of silica or volcanic ash. In many instances, particularly in washing walls and floors, it is less expensive to purchase the natural ingredients, such as soap and one or more detergents, and mix them yourself. Having the more specialized compounds made up to specification by a manufacturer results in the greatest economy.

TEXTILES AND PAPER GOODS

It is amazing to learn how infrequently institutional purchasing agents check shipments of textiles for such things as weight per square yard and thread count. Such factors should be checked regularly in order to ascertain compliance with the types of materials ordered. Owing to the lack of facilities, data on tensile strength are seldom checked. The need for such checking is indicated by recent tests we made on sheets. There has been a quality deterioration, particularly in tensile strength, in several widely sold brands. No purchasing agent should be willing to accept sheets that fall below the A.S.T.M. requirements for sheeting in these respects.

Paper goods represent a high expenditure for educational institutions. Paper towels should be absorbent, but it is astonishing how few will meet the specification requirements for the rate of absorbency of a drop of water. This test is simple and it can be carried out for comparative purposes at the purchasing agent's desk. Accurate measurements of tensile strength are not so easily made, but a simple device can be designed that will be accurate enough to detect important differences in the quality of some brands. Low grade toilet tissue can be quickly eliminated in the same manner.

FLOOR WAXES AND PAINTS

Floor waxes are bought in large quantities by all institutions. Too often a brand is chosen not on actual serviceability but because the company happens to be sponsoring an entertaining radio program. As with soap, comparative tests are not easy to make. Gloss, leveling properties, water resistance, resistance to wear, nonslip properties, stability and total solids content cannot be determined accurately by casual examination. By having a floor wax manufactured to a definite specification it is possible to control the quality of the materials used and to keep a close check on serviceability.

It is most uneconomical to purchase paint on a price basis alone. The cost of materials is only a fraction of the cost of applying the paint; consequently, only a paint of excellent quality should be purchased. Investigations have shown that Federal Specification paint will far outwear many of the brands of paint sold to the general public. Have your head painter study the Federal Specification requirements carefully and then measure such factors as caking, working properties, spreading rate, drying time, hiding power, flexibility and washability and compare the results of tests on several brands. Such tests will not only aid you in selecting paints of high quality but also furnish the painter excellent training in analyzing the products offered. One way to overcome the personal preferences based on prejudice and habit is to have engineers and supervisors test out products against the specific requirements included in a satisfactory specification.

PLASTICS

Plastic materials are being used in the production of all kinds of items today. With no adequate labeling laws in effect, it is difficult for the buyer to determine whether the item will give satisfactory service under particular conditions of use. The purchasing agent must be in a position to judge the probable serviceability of a wide variety of plastic films, plastic coated fabrics, upholstery materials, tableware and hundreds of applications.

While plastics represent an important addition to materials used in present day manufacture, they have several important limitations. No plastic material is completely shatterproof. Few will withstand high temperatures, not even the temperature of boiling water, for long periods. Plastics also have a comparatively low resistance to abrasion and will discolor and stain rather easily.

One of the most promising applications of plastic is in tableware. Service tests run in several institutions indicate that a good grade of plasticware is more economical than chinaware because of the high breakage of the latter. Plasticware has been used in the cafeteria of Teachers College, Columbia University, for more than a year with highly satisfactory results. In a cafeteria serving 3500 meals a day an initial expenditure of $2200 was required to change over from chinaware to plasticware. In one year the replacement cost was between $600 and $700 in contrast to a breakage of almost $2000 for chinaware. One of the major losses in the use of the plasticware was theft; another was the need for replacing the coffee cups because of staining.

There are several important advantages in using plasticware in addition to the greater economy. Noise in the kitchen and dining room has been reduced greatly. The plasticware being much lighter in weight, a student can carry a trayful of food with one hand, an important factor in school cafeterias. While the plates scratch to some extent, the New York City Department of Health has reported this insignificant from the standpoint of bacterial contamination.

The tests required by the Federal Specification for resistance to boiling, staining and water absorption can be readily made without special laboratory equipment. Even the impact test for strength can be done without special equipment.

PRACTICAL SUGGESTIONS

When more elaborate tests of various products are required, two or three procedures can be suggested.

Most educational institutions have chemical and physical laboratories available. It would be good training for students to test some of the brands of products referred to the purchasing department, bringing practicality into theoretical courses and at the same time developing a skeptical attitude on the part of the students. Several colleges might well combine their testing programs for major items and thus avoid duplication of effort.

Another procedure is to require that test data be furnished when contracts for major types of supplies are being made. It is not an uncommon practice for large commercial organizations to require that test data be supplied by the manufacturer from independent laboratories showing the degree of conformity with a given specification. This is frequently done by brokers when purchasing canned goods and can be readily applied to many types of commodities when they are being purchased in substantial quantities. Specifications and standards of qual-

ity are no better than the degree to which the delivered product meets their requirements. Long experience has convinced those agencies that buy on specification that testing of the delivered goods is essential. There is nothing sacrosanct about brand names. No brand, no matter how widely it may be accepted, should be above being subjected to comparative testing.

More buyers with a scientific, objective attitude toward their purchasing job are needed in the institutional field. With the technical knowledge and the advertising and selling skill all on the side of the manufacturer and vendor, the buyer can perform his function adequately only by applying technical skill and scientific methods in making his purchases.

TAXES CAN PUT COLLEGES OUT OF BUSINESS

ERVIN T. BROWN
Treasurer, Rollins College

RECENTLY I WROTE A LETTER TO every member of the Eastern Association of College and Business Officers and to the Southern Association as well asking that my fellow financial officers unburden themselves on the subject of any tax irritants that have intruded upon their otherwise placid existences. As a reward I promised to give each one a summary of all the knowledge or ignorance I discovered on the subject when I found time to collate the results.

Out of some 150 replies, one conclusion stands out crystal clear: The age old tax exempt privileges of colleges and universities are gradually being taken away—slowly, yet surely.

It would seem that state institutions would have relatively little to fear in this regard, but even many of them report having to make important concessions in this respect, even though they are but divisions of a sovereign state.

However, with the privately endowed denominational institutions, it is quite another matter. Virtually none of these enjoys the same tax exempt privileges of the state institutions in the state in which they are located. My brief study convinces me that if a single college or university, privately endowed, were saddled with all of the amazing variety of sales taxes, use taxes, ad valorem taxes, realty taxes, admission taxes, sewer taxes, utility taxes, improvement assessments, and so on ad infinitum that obtain in various localities and states—if all of these various levies were made against one single endowed institution—it would be forced into bankruptcy in short order.

One has but to read through the mass of replies I have received from my fellow business officers to know that Chief Justice Marshall spoke the literal truth more than a century ago when he said: "The power to tax is the power to destroy."

If we accept the universally approved conception that higher education is the function of the state, by the most elementary logic it follows that:

1. State institutions of higher learning are simply divisions of the state itself, and consequently are completely exempt from state, county and municipal taxes and assessments of all sort. By the same token, since the nation cannot tax purely state activities, these institutions should be exempt from all forms of federal tax. (Those of you who do not believe in "state's rights" may disagree at your own peril!)

This does not mean that a state institution of higher learning can run a factory, operate a dairy, or engage in any other profit-making enterprise in competition with its own citizens but, rather, that all proper activities in connection with its primary educational function should be tax free.

2. Private educational institutions of higher learning, which ask no tax subsidy from the state but which merely ask for tax exemption, should be accorded every privilege granted tax supported institutions, so far as the question of taxation is concerned.

This seems too elementary to argue. These private institutions are performing a function of the state; they ask no subsidy, merely tax exemption. But what are the facts? Here is a single illustration, quoted from a private college in Alabama:

"We are required to pay a 2 per cent state sales tax on all purchases made within the state and a 2 per cent state tax, called a "use" tax, on all purchases made outside of the state. State institutions are exempt from these taxes. . . ."

This illustration could be multiplied many times merely by referring to the letters I received.

Another significant tax complication mentioned by many business and financial officers is that only a few of our states (fourteen to be exact) have adequate reciprocal provisions in their statutes to permit residents of one state to make a tax free gift or legacy to a nonprofit institution of higher learning located in another state. This is a matter that each of us could well afford to investigate and then use our influence to have the proper legislation enacted in our own state.

Only a handful of my fellow business officers mention what to me is vital and basic in the field of taxation. By that I mean the philosophy that has come to prevail in the last fifteen years of using taxation as a means of redistributing wealth. To me that is the most dangerous and pernicious fallacy ever enunciated. Punitive and confiscatory taxation, masquerading under the guise of social and economic uplift and reform, sponsored by demagogues, embraced by misguided Socialists and used as a deadly weapon by designing Communists, is undoubtedly a danger that threatens to destroy the American way of life.

Carried to the inevitable extreme, it could mean the extinction of every private institution of higher learning. There is not a single private institution of higher learning in the world that was not born of, or which has not been nurtured by, individual initiative and accomplishment. When we, by taxation, place an unbearable penalty on the accumulation of wealth through individual initiative, we are undermining the foundations supporting all private institutions.

For this creeping paralysis, I offer no magic panacea. I merely suggest that each of us should, in our own sphere, be alert and aggressive in doing everything we can to stop its destructive progress. "Eternal vigilance is the price of liberty" is no empty phrase. We must be eternally vigilant to survive.

From an address given at the meeting of the Eastern Association of College and University Busines Officers.

PRIVATE CONTROL AND PUBLIC INTEREST

M. M. CHAMBERS
American Council on Education

MORE THAN HALF OF THE UNIVERsities and colleges in the United States are privately controlled institutions known to the law as "charitable corporations." For centuries this type of legal entity has been licensed and encouraged by the state because it performs public functions that the state itself might otherwise be obligated to perform and thus "relieves the burdens of government."

Moreover, in the field of higher education these privately controlled charitable corporations may offer instruction infused with a particular religious or sectarian tone—a purpose for which our constitutions prohibit the use of public monies. They may charge high fees, and often their charters leave them quite free to select whom they will admit as students.

Thus their existence contributes to the variety of the educational system and to the diversity of choices available to persons who want their educational institutions to bear an impress of a certain denominational group, economic station, or social class. They are an outgrowth of the pluralistic theory of society in which state monopoly is abhorred and in which the individual is permitted and encouraged to have numerous legitimate allegiances to institutions other than the state.

Few will doubt that the public has some sort of moral right bound up in the continuance and proper management of these privately controlled institutions. Every American jurisdiction grants them tax exemptions of various sorts, and every jurisdiction possesses ample authority to inspect and regulate them in order to ensure the maintenance of standards beneficial to the public. There is a tradition long and strong, however, that this inspectorial and regulatory power shall be wielded only lightly if at all; in fact, historically the relationship between a state and the private universities and colleges within it has often been almost exactly the reverse of what one might suppose it to be.

It has often been the private institutions that have themselves of their own volition set the highest standards and commanded the highest respect from a statewide, nationwide and worldwide clientele, while the state failed to assume leadership in the field of higher education, except through the parallel and competitive development of the great state universities and other colleges state supported and state controlled.

Only recently has the exact nature of the "public interest" in private colleges and universities become a burning issue, and largely because the current overcrowding of higher educational facilities has made it impossible for many a prospective student to get into the institution of his choice or perhaps into any institution at all. There has come, too, an intensification of the older issues of discrimination in admissions, so that a redefinition of the nature and prerogatives of the privately controlled institution may be in the making. Just how far is such an institution "affected with a public interest"? Can it be compelled to admit all applicants who pass its entrance examinations?

A negative answer comes from an Illinois appellate court in a recent case involving the application of a prospective student in Northwestern University. A precocious boy born near the end of 1929 applied for admission to the liberal arts college of the university in September 1944 and took and passed the entrance examinations, but his application was rejected on the ground that he was too young, being then only 14 years of age. He enrolled in the university's evening school of commerce in 1944-45 and successfully completed fourteen credit hours of work. In June 1945 he was denied admission to the summer course in commerce, and in September he was denied admission to the college of liberal arts, both refusals being because he had in the meantime instituted a suit to compel the university to admit him. This suit was dismissed by the local superior court, and an appeal was taken direct to the supreme court of Illinois on the ground that the plaintiff's constitutional rights were involved. The supreme court ruled that there was no constitutional question concerned and accordingly transferred the appeal to the intermediate appellate court, where the record was reviewed and a judgment unfavorable to the plaintiff was rendered.

It was the opinion of the court that the university had protected its position fully by stating in its catalogs of 1943-45 that it was not possible to admit all applicants who passed the entrance examinations, and by placing in the catalog for 1945-46 a statement that the university reserved the right to exclude any applicant for any reason deemed sufficient by it.

Said Judge Kiley: "Under its charter the university had the power to adopt whatever rules it deemed necessary to the proper attainment of the university purpose. . . . The only compulsion arising out of the university's charter with respect to admissions is that 'no particular religious faith shall be required of those who become students.' There is no point before us based on breach of this command.

"A line must be drawn somewhere," said he, "if there are more qualified students than can be accommodated. The educational facilities of this country have been strained to the utmost by the great number of postwar students. It is a matter of common knowledge that thousands have been turned away from most, if not all, of the colleges and universities in the United States."*

The decision, no doubt, will be regarded as a strengthening of the ramparts defending the right of a privately controlled educational institution to select its own students, free from state compulsion. The way is open for the state to provide facilities for higher education for all qualified applicants at its own state universities and colleges.

*People ex rel. Tinkoff v. Northwestern University, 333 Ill. App. 224, 77 N.E. 2d 345 (1947).

FIVE STEPS TO EFFECTIVE FOOD BUYING

A. A. FROOMAN
Consulting Specialist on Institutional Food Buying

Step 2

"DETERMINE WHAT BEST FITS YOUR needs" is the second step in food purchasing. Food selections are based on: (1) the type and character of the institution; (2) the style of operation and system of serving; (3) the classes of people served; (4) local tastes, eating habits, and prejudices; (5) the purpose or occasion for which the product is desired; (6) the intended use of the product; (7) how much can be spent per portion.

There will be different selections made for a women's college than for a men's residence hall, for example.

The problems involved in buying for a cafeteria where eye appeal means so much in the sale of every dish are definitely unlike those that must be considered when serving a patron from a kitchen or when preparing trays for hospital patients.

CONSIDER LOCAL PREJUDICES

Experienced buyers recognize the fact that local tastes, eating habits, and prejudices exist, and they adjust their food selections accordingly. Some people like white, or natural, asparagus. Others have a decided preference for the all green variety. In certain regions, the corn favorite is cream style Country Gentleman. In others, you cannot serve anything but the golden color varieties. And did you ever try to serve an Indiana tomato juice, as such, to a Californian, or a California orange juice in any district in Florida where they produce oranges? These are only a few typical examples of local prejudices.

The purpose or occasion for which a product is desired may determine the grade, type, style, variety or size required. A la carte menus generally call for selections quite different from table d'hôte or plate specials, especially in size and often in grades and varieties. For example, a fancy 18/22 count Midsummer yellow cling peach half packed in 55° sirup might be used for an à la carte peach Melba dessert, whereas a 30/35 count or a 35/40 count peach half would be used for a similar table d'hôte or plate special service.

FOR PARTIES AND BANQUETS

For parties and banquets, something extra special or just a little bit different from ordinary selections might be desired—a dish of fancy nature ripe Lovall peaches in 55° sirup or some fancy nature ripe whole peeled 40/50 count Santa Clara Blenheim apricots in 55° sirup for dessert; some colossal 12/16 count fancy all green asparagus spears for a special salad, or some fancy spiced Thompson seedless grapes in clusters packed in heavy sirup for a garnish.

In the final analysis, food cost limitations (how much you can afford to spend per unit portion) will directly influence the ultimate choice of selection. While there is a substantial variation in cost between a fancy grade and a standard grade, the greatest difference in unit portion costs is accounted for by the size of the portion. This cost can be rather simply controlled when the product can be weighed out, so many ounces to the portion, and also by the use of portion control cups. The problem, however, requires special attention and treatment when counts and sizes are involved.

For example, No. 10 cans of California yellow cling peaches packed in 40° sirup cost just about the same for all available commercial counts—18/22, 20/25, 25/30, 30/35 and 35/40—within the same grade. Assuming the size is satisfactory for the purpose, a peach counting 35/40 halves to the No. 10 can and served one unit to the portion costs 80 to 95 per cent less per portion than do peach halves of the same grade and variety counting 18/22 to the No. 10 can.

In other words, an institutional food buyer can cut unit portion costs as much as 50 per cent without even considering the factor of competitive prices if care is exercised in the selection of the proper size or count for the intended use or purpose.

No buyer, no matter how experienced, can save that much on the open market or in competitive buying regardless of the purchasing procedure adopted. In the food industry, a differential of 5 per cent for like products—same grade, type and variety—is considered a big factor. Any differential of greater than 5 per cent for supposedly like quality should be viewed with caution. Many large wholesale food distributors work on a net profit margin of from 1 to 2 per cent, and it may be safely stated that most of them would welcome a guaranteed 1½ per cent net profit margin on their annual business.

What applies to unit portion costs of canned peaches and canned pears refers equally to every other product where counts and sizes are factors in food service, so watch this point closely.

It is extremely important that selections be decided on only after careful study and thorough consultation with your food production staff and sources of supply. Depending upon the size of the operation, it may take a few hours or it may take weeks to arrive at definite conclusions. Spend the time. It will pay big dividends.

YEAR-ROUND AVAILABILITY

Remember that there is no such thing as one average selection for institutions. Even the most exclusive establishment may require all grades, fancy, choice or extra standard, standard and substandard, depending upon the particular need for the product.

A word of caution! Take great care to consult with your sources of supply regarding year-round availability before making final selection decisions so that you may properly provide for your estimated requirements on an advantageous basis. Make sure of a reasonably

Number of Servings per Can of 26 Commonly Served Foods

PRODUCT	SIZE OF CAN	NET WEIGHT	NUMBER OF SERVINGS PER CAN					
			1-OZ. Portions	2-OZ. Portions	3-OZ. Portions	4-OZ. Portions	5-OZ. Portions	Servings Governed by Number of Pieces or by Average Portion
Apple Juice	No. 10	3 qts.	.....	.....	32	24*	19	.....
Apples	No. 10	6 lbs.	(Principally Used for Pies)					36 (Six 9" Pies) 6 cuts per Pie**
Applesauce	No. 10	6 lbs. 11 ozs.	107*	53	35	26	21	.....
Apricots, Halves	No. 10	6 lbs. 12 ozs.	.....	.....	.....	.....	.....	42 (2 pieces per serving)**
Apricots (Solid Pack)	No. 10	6 lbs. 10 ozs.	(Principally Used for Pies)					36 (Six 9" Pies) 6 cuts per Pie**
Asparagus, Cuts and Tips	No. 10	6 lbs. 7 ozs.	103	51	34*	26	21	.....
Beans, Green (Cut, Whole or Sliced)	No. 10	6 lbs. 5 ozs.	101	50	33*	25	20	.....
Beans, Lima	No. 10	6 lbs. 9 ozs.	105	52	35*	26	21	.....
Beans, Red Kidney	No. 10	6 lbs. 12 ozs.	108	54	36	27*	21	.....
Beets, Sliced, Quartered or Diced	No. 10	6 lbs. 3 ozs.	104	52	34*	26	20	.....
Blueberries (Water Pack)	No. 10	6 lbs. 9 ozs.	(Principally Used for Pies)					36 (Six 9" pies) 6 cuts per pie**
Carrots (Diced, Sliced, Cut or Whole)	No. 10	6 lbs. 8 ozs.	104	52	34*	26	20	.....
Catsup, Tomato	No. 10	7 lbs. 3 ozs.	115*	.....	.....	.....	.....	.....
Cherries, Red Sour Pitted (Water Pack)	No. 10	6 lbs. 11 ozs.	(Principally Used for Pies)					36 (Six 9" pies) 6 cuts per pie**
Cherries, Sweet	No. 10	6 lbs. 12 ozs.	.....	.....	.....	.....	.....	66 (5 pieces per serving)**
Corn, Cream Style or Whole Grain	No. 10	6 lbs. 10 ozs.	106	53	35*	26	21	.....
Figs	No. 10	7 lbs.	.....	.....	.....	.....	.....	50 (2 pieces per serving)**
Fruit Cocktail	No. 10	6 lbs. 12 ozs.	108	54	36*	27	21	.....
Grapefruit	No. 404	3 lbs. 2 ozs.	.....	.....	.....	.....	.....	12 (5 pieces per serving)**
Jams	No. 10	8 lbs. 8 ozs.	136*	68	.....	.....	.....	.....
Peaches, Clingstone, Whole	No. 10	6 lbs. 12 ozs.	.....	.....	.....	.....	.....	35 (1 piece per serving)**
Pears, Halves	No. 10	6 lbs. 12 ozs.	.....	.....	.....	.....	.....	30 (1 piece per serving)**
Peas	No. 10	6 lbs. 9 ozs.	105	52	35*	26	21	.....
Pineapple, Sliced (50 Count)	No. 10	6 lbs. 12 ozs.	.....	.....	.....	.....	.....	25 (2 pieces per serving)**
Prunes, Fresh	No. 10	6 lbs. 12 ozs.	.....	.....	.....	.....	.....	27 (3 pieces per serving)**
Spinach	No. 10	6 lbs. 2 ozs.	98	49	32*	24	19	.....

*Indicates size of servings normally used.
**Indicates that servings will vary according to count in can and number or size of pieces served.

steady market flow of supplies to avoid paying premiums for selections in limited or restricted production.

Step 3

Compile Written Specifications Covering Your Selections

THE THIRD STEP IN FOOD BUYING consists of written specifications covering foods regularly used, based on commercial descriptions used every day in the year by the entire food industry and recognized, understood and accepted by canners, brokers, distributors and buying specialists, whether they be located in California, Illinois, Texas or elsewhere.

Food expenditures represent at least 40 or 50 per cent of total food service operating costs. Yet it is the exceptional institutional food buyer who makes any attempt to compile written specifications covering his food selections based on recognized and accepted commercial descriptions.

Unquestionably, many experienced institutional food buyers are familiar with commercial descriptions and mentally store away a fund of knowledge about foods purchased and selections used daily, a knowledge gained through the school of experience.

To these buyers, all I can say is, "Don't throw away the fruits of your hard won experience. Even if you seldom, if ever, want to refer to the records yourself, put down in black and white the important information regarding purchases and food selections as a guide to those who may follow you. A new buyer can hardly be expected to learn in a few days, or even in months, about foods used in a specific operation — information and knowledge that his predecessor required years to accumulate. If for no other reason, loyalty to the college suggests the convenient compilation of all pertinent buying information for ready reference."

You can easily get the facts needed to compile written specifications if you don't already have the required information. Simply refer back to the June installment and get in contact with some of the recommended sources of information. Your own purveyors, food industry associations, can manufacturers, and the U.S. Department of Agriculture will all be happy to serve you.

Specifications covering foods are not intended as a cure-all for maximum buying efficiency. There is much more to food buying than this. Specifications do, however, assure a minimum buying standard and provide the foundation upon which to build for greater buying efficiency.

There is a reasonable margin of tolerance provided within each grade, both in commercial standards and in government standards. In the scoring system adopted by the U.S. Department of Agriculture, the fancy grade ranges in score from 90 to 100 points of perfection, a 10 to 11 per cent tolerance within that grade; choice and extra standard grades range in score from 75 to 89 points of perfection, a tolerance of 16 2/3 to 20 per cent within those grades, and the standard grade in scoring ranges from 60 to 74 points of per-

Cost per Serving of 26 Commonly Served Foods

Cost Per Doz. Units	Cost Per Unit	COST PER SERVING																			Cost Per Unit	Cost Per Doz. Units
		15 Portions	18 Portions	20 Portions	23 Portions	25 Portions	28 Portions	30 Portions	33 Portions	35 Portions	38 Portions	40 Portions	43 Portions	45 Portions	48 Portions	50 Portions	53 Portions	55 Portions	58 Portions	60 Portions		
2.50	.2083	.0139	.0116	.0104	.0091	.0083	.0074	.0069	.0063	.0060	.0055	.0052	.0048	.0046	.0043	.0042	.0039	.0038	.0036	.0035	.2083	2.50
2.75	.2292	.0153	.0127	.0115	.0100	.0092	.0082	.0076	.0069	.0065	.0060	.0057	.0053	.0051	.0048	.0046	.0043	.0042	.0040	.0038	.2292	2.75
3.00	.25	.0167	.0139	.0125	.0109	.01	.0089	.0083	.0076	.0071	.0066	.0063	.0058	.0056	.0052	.005	.0047	.0045	.0043	.0042	.25	3.00
3.25	.2708	.0181	.0150	.0135	.0118	.0108	.0097	.0090	.0082	.0077	.0071	.0068	.0063	.0060	.0056	.0054	.0051	.0049	.0047	.0045	.2708	3.25
3.50	.2917	.0194	.0162	.0146	.0127	.0117	.0104	.0097	.0088	.0083	.0077	.0073	.0068	.0065	.0061	.0058	.0055	.0053	.0050	.0049	.2917	3.50
3.75	.3125	.0208	.0174	.0156	.0136	.0125	.0112	.0104	.0095	.0089	.0082	.0078	.0073	.0069	.0065	.0063	.0059	.0057	.0054	.0052	.3125	3.75
4.00	.3333	.0222	.0185	.0167	.0145	.0133	.0119	.0111	.0101	.0095	.0088	.0083	.0078	.0074	.0069	.0067	.0063	.0061	.0058	.0056	.3333	4.00
4.25	.3542	.0236	.0197	.0177	.0154	.0142	.0127	.0118	.0107	.0101	.0093	.0089	.0082	.0079	.0074	.0071	.0067	.0064	.0061	.0059	.3542	4.25
4.50	.375	.0250	.0208	.0188	.0163	.0150	.0134	.0125	.0114	.0107	.0099	.0094	.0088	.0083	.0078	.0075	.0071	.0068	.0065	.0063	.375	4.50
4.75	.3958	.0264	.0220	.0198	.0172	.0158	.0141	.0132	.0120	.0113	.0104	.0099	.0092	.0088	.0082	.0079	.0075	.0072	.0068	.0066	.3958	4.75
5.00	.4167	.0278	.0232	.0208	.0181	.0167	.0149	.0139	.0126	.0119	.0110	.0104	.0097	.0093	.0087	.0083	.0079	.0076	.0072	.0069	.4167	5.00
5.25	.4375	.0292	.0243	.0219	.0190	.0175	.0156	.0146	.0133	.0125	.0115	.0109	.0102	.0097	.0091	.0088	.0083	.0080	.0075	.0073	.4375	5.25
5.50	.4583	.0306	.0255	.0229	.0199	.0183	.0164	.0153	.0139	.0131	.0121	.0115	.0107	.0102	.0095	.0092	.0086	.0083	.0079	.0076	.4583	5.50
5.75	.4792	.0319	.0266	.0240	.0208	.0192	.0171	.0160	.0145	.0137	.0126	.0120	.0111	.0106	.01	.0096	.0090	.0087	.0083	.0080	.4792	5.75
6.00	.50	.0333	.0278	.0250	.0217	.02	.0179	.0167	.0152	.0143	.0132	.0125	.0116	.0111	.0104	.01	.0094	.0091	.0086	.0083	.50	6.00
6.25	.5208	.0347	.0289	.0260	.0226	.0208	.0186	.0174	.0158	.0149	.0137	.0130	.0121	.0116	.0108	.0104	.0098	.0095	.0090	.0087	.5208	6.25
6.50	.5417	.0361	.0301	.0271	.0236	.0217	.0193	.0181	.0164	.0155	.0143	.0135	.0126	.0120	.0113	.0108	.0102	.0099	.0093	.0090	.5417	6.50
6.75	.5625	.0375	.0313	.0281	.0245	.0225	.0201	.0188	.0170	.0161	.0148	.0141	.0131	.0125	.0117	.0113	.0106	.0102	.0097	.0094	.5625	6.75
7.00	.5833	.0389	.0324	.0292	.0254	.0233	.0208	.0194	.0177	.0167	.0153	.0146	.0136	.0130	.0122	.0117	.0110	.0106	.0101	.0097	.5833	7.00
7.25	.6042	.0403	.0336	.0302	.0263	.0242	.0216	.0201	.0183	.0173	.0159	.0151	.0141	.0134	.0126	.0121	.0114	.0110	.0104	.0101	.6042	7.25
7.50	.625	.0417	.0347	.0313	.0272	.0250	.0223	.0208	.0189	.0179	.0164	.0156	.0145	.0139	.0130	.0125	.0118	.0114	.0108	.0104	.625	7.50
7.75	.6458	.0431	.0359	.0323	.0281	.0258	.0231	.0215	.0196	.0185	.0170	.0161	.0150	.0144	.0135	.0129	.0122	.0118	.0111	.0108	.6458	7.75
8.00	.6667	.0444	.0370	.0333	.0290	.0267	.0238	.0222	.0202	.0190	.0175	.0167	.0155	.0148	.0139	.0133	.0126	.0121	.0115	.0111	.6667	8.00

fection, a 20 to 25 per cent tolerance within that grade.

No one can disregard the fact that nature still controls growing conditions and crops; that foods are not stamped out on presses to the ten thousandth inch like a machine screw, and that the human element must be reckoned with on the farms, in every canning operation, each phase of distribution, and in every buying office. These are the important factors that account for the tolerance necessarily allowed within each grade.

Once written specifications are established, the individual institutional food buyer's experience, ability and capacity to judge quality and to determine values will set the limits toward attainment of the 100 per cent buying efficiency goal.

When compiling written food specifications, be thorough in detailing descriptions. Don't leave out any known bit of information that will assist the sources of supply in understanding your requirements and preferences.

Written specifications for specific selections of processed foods may include the following factors which require little explanation.

Grades: It is always important to specify the degree of quality desired. When purchasing processed foods, this is accomplished by indicating one of the established commercial grades.

Geographical Area of Production: Differences in soil and climate account for wide variations in products, even of the same variety, grown in different districts. Whenever possible indicate the geographical area of production if you have a preference.

Variety Preference: Quality generally differs widely with the variety, and it is advisable to indicate the variety desired, when such information can be determined. A good example of this is the Bartlett variety and the Kieffer variety of canned pears.

Type: The importance of this factor can perhaps best be illustrated by the difference between freestone peaches and yellow cling peaches, or sweet peas and early June peas.

Style: Whenever more than one style of a product is available, be sure to incorporate such factor in the specifications. This is well illustrated by cream style and whole kernel corn.

Count Size: A highly important factor. Even a slight variation in count size can result in a decided unit portion cost differential.

Sieve Size: In general, the smaller the sieve size the higher its commercial value. Usage and type of service may also dictate a certain sieve size.

Packing Medium: Specifications should always designate the packing medium, such as sirup, sugar or juice.

Sirup Density: This refers to the degree or percentage of sugar sirup used in the packing medium, or found on inspection of product.

Concentration: This factor especially applies to tomato paste and tomato purée and refers to the salt free tomato solids content.

Specific Gravity: An important factor in determining merits of tomato purée.

Kind of Container: There is generally a popular range of available container sizes with accompanying range of cost differentials. Indicate the container size best to fit the need.

Fill of Container: The terms "regular pack," "heavy pack," and "solid pack" often indicate minimum net contents and drained weights. Minimum net contents must appear on all labels. However, to avoid misunderstandings it is advisable, whenever possible, to specify minimum drained weights.

Number of Units in Shipping Case: To assure uniform consideration of comparable offerings, always specify unit size of shipping container.

Looking Forward

In Case of Fire

HOW MANY COLLEGE ADMINISTRATORS CAN DE-rive comfort from the knowledge that every possible precaution has been taken to safeguard the lives of students? Are ample exits available in residential and classroom buildings? Are regular fire drills conducted as a part of the safety program? Are rubbish and fire-inducing waste material properly disposed of?

Today's congested housing conditions on college campuses have undoubtedly resulted in some improvising which is not consistent with even minimum safety standards. In other cases, archaic rules and regulations constitute an open invitation to disaster.

It hardly seems believable, but cases have been reported in which college students (in most cases women) are "locked in" their residence halls for the night at the time of the college-administered curfew. Individual rooms are not locked, it is true, but outside exits are locked by the resident matron or housemother and the key is removed until the next morning. In the event of a fire, the students' safety is entirely dependent upon the ability of the housemother to unlock the door. This may be impossible, for there is no assurance that she could reach the exit in time, or that she herself would not be overcome by smoke or shock. The possibility of a terrible tragedy is obvious.

Granted that colleges feel a responsibility of maintaining the morale and morals of their students, and that supervision is necessary, the blocking of every avenue of escape from the building in case of fire is carrying supervision too far.

Public Relations Blueprint

SELDOM DOES ONE COME ACROSS A BOOK ON public relations that deals in specific terms with the ideas and "mechanics" of developing a well-rounded public relations program. Too often the subject is treated in generalities, lacking any application to daily experience.

Within the last two years John H. McCoy, assistant to the president and director of public relations at Occidental College in Los Angeles, has compiled a "Calendar of College Activities" which is in reality a source book of projects and ideas which should be of great value to the institutions that use them. A day-by-day public relations schedule is suggested for every month of the year, and all ideas are derived from college and university experience.

In addition, this year's volume features a special section on alumni and fund-raising technic, as well as an extensive bibliography on public relations which should be helpful to a college administrator.

The public needs to know and understand the work of a college if it is to be expected to support it. McCoy's "Calendar of College Activities" ought to be a definite aid in achieving that objective.

How About Housing the Faculty?

IN THE RUSH TO PROVIDE HOUSING FOR G.I. STUdents, some colleges forgot about their faculty members, many of whom have been forced to accept intolerable housing conditions. Is it any wonder that it becomes increasingly difficult to employ new faculty members?

At the other extreme, Washington University in St. Louis has provided emergency housing facilities for staff members, but none for students. Somehow, colleges must find a way to house both of these groups.

As a permanent policy, the provision of congenial and adequate living quarters for at least a substantial portion of the faculty is essential. It makes possible the acquisition of desirable personnel which might otherwise refuse to join the staff. It provides a definite morale asset, as it frees the new staff member from the worry and distress of adjusting to housing facilities which are incompatible with his background and training.

Every college or university must inevitably recognize that its academic standing is largely based on its ability to attract and hold staff members of superior competence. When the quality of faculty deteriorates, the institution is headed for eventual decline as an effective educational unit.

Good housing will not necessarily ensure a good faculty. However, it is one step that can be taken to place an institution in a more favorable position to attract and retain a high quality of professorial talent.

QUESTIONS AND ANSWERS

Base for Cinder Track

Question: We are planning to build a cinder running track in our stadium. What sort of base, and how heavy a layer of cinders should be used?—G.F.A., Ill.

ANSWER: Southern Methodist University likes a low rolled curb and gutter with the back to the track. This furnishes a grade toward which to work the track finish; also, when holes are left in the curb the rainfall has a way to drain into the gutter. We recommend 6 inches of big rock rolled enough to bed in the ground, but not rolled until the base is so tight it holds water; 4 inches of coarse cinders rolled rather heavy; 2 inches of fine screened cinders mixed with screened dirt to suit, and approximately two parts of cinders to one part of dirt. Each year this mixture will change with the amount of rainfall until either more dirt or more fine cinders will have to be raked into the topping, then rerolled to suit track men.

Be sure to provide some means of draining rainfall off the track. If water is allowed to stand in places you will soon have soft spots.—STANLEY PATTERSON, *superintendent of buildings and grounds, Southern Methodist University.*

Eliminating Soot

Question: What can be done about the problem of soot being scattered over the premises from the college smokestack?—J.A.B., N.Y.

ANSWER: It is not easy to give a short specific answer because the soot problem is tied up with the entire combustion system. The use of proper automatic combustion equipment and automatic draft controls to maintain a proper balance between the positive pressure under the grates and the negative pressure over the fire is the answer to soot control.

One college installed automatic draft control equipment and that, plus the installation of CO_2 meters and stack temperature recorders, enabled it to increase overall combustion efficiency from about 58 per cent to an average of 71 per cent.—E. W. JONES.

Professional Jealousies

Question: What should be the relationship of a student health service to local hospitals and clinics? Will it be considered competitive by the local medical society?—R.W.T., Mo.

ANSWER: Actual medical care of students is only a portion of the duties of a modern college health service. Routine physical examinations, advice on correction of remediable defects and faulty health habits, control of contagion, supervision of campus living conditions and sanitation, health education, and health supervision of physical activities are primary duties of a health service, and only in rare instances may these duties infringe upon local health and medical activities.

College health physicians are residents of the community and members of the local medical societies. It is difficult to understand why they offer any more of a competitive hazard than does any physician of the community, or why a college health service varies markedly from an industrial medical practice.

If there is a feeling in a community that a health service competes unfairly with other medical agencies, then perhaps the local medical society needs education and the college health service better public relations.—RALPH I. CANUTESON, *M.D., director of health service, University of Kansas.*

Policy on Federal Tax

Question: Should federal tax be paid on student association tickets when they provide admission to games?—M.E.W., Iowa.

ANSWER: The administrative policy of the Bureau of Internal Revenue relative to student association tickets has consistently been as follows: the portion of the student activity fee that is allocable to dances and other affairs must be considered as a taxable admission charge within the purview of the law, even though such portion is not the greater part of the fee and does not represent the primary privilege afforded the students. The charge applicable to the admissions, the tax thereon, and the total should be shown on each coupon booklet.—JOHN T. JARECKI, *collector, internal revenue, Chicago.*

Allocation of Costs

Question: In the endowed institution, what basis or bases are used in allocating expenses of administration and maintenance of plant to the various colleges and to other divisions within the institution?—D.S., La.

ANSWER: Expense allocation is a matter for good judgment and common sense. The basis should be that which is most applicable to the problem at hand. Allocation of administration can be made on the basis of time of administrators or value of expenditures within each division. Allocation of maintenance of plant can be made according to the proportionate use of plant, actual costs being used when possible. Other costs can be allocated according to the nature of the item, *i.e.* square feet of radiation for buildings served from heating plant, or appraised values for insurance. Much depends upon the purpose to be served by the cost accounting study.—BOARDMAN BUMP, *comptroller, Mount Holyoke College.*

Responsibility for Loss

Question: What is the responsibility of a school or college toward students' personal possessions when a loss is incurred by fire or other unexpected disaster?—W.R.B., Tenn.

ANSWER: It may be assumed that a college or university has no inherent responsibility for protecting its students against loss of personal property caused by fire or other disaster, unless the institution accepts custodianship of such property. Should such loss result from negligence on the part of the institution, it might be held liable. —RALPH J. WATTS, *business manager, Lawrence College.*

Schools for Janitors

Question: Is there any institution which conducts a training school for janitors or building maintenance personnel? — T.M., Calif.

ANSWER: Columbia, Minnesota and Iowa State College conduct training schools for janitors. Inquiries addressed to extension divisions of other universities and colleges would probably show that short courses are given by a number of them.—A. F. GALLISTEL, *director of physical plant, University of Wisconsin.*

NEWS

September 22 Is Crucial Date . . . October 26 Deadline for Surplus Housing . . . Federal Aid and Regional College Bills Fail to Pass . . . Studebaker and Ewing Clash . . . Michigan Gets Million for Student Aid . . . Drop-Outs of Vets Discouraged

Washington Correspondent: BEN BRODINSKY

Students Enrolled by September 22 Will Be Deferred Under Draft

WASHINGTON, D.C.—September 22 is a crucial date for registrars and other college officials. Under the Selective Service Act of 1948, students registered on and before that date will be considered enrolled and may not be called for induction until they complete their first year of college.

Under the draft law as signed by the President on June 24, induction cannot begin until ninety days after the signature, or September 22. Although this is before opening time for many institutions, educators in Washington interpret the law so that simple registration of a student in a college will qualify him for deferment, unless the President declares a national emergency.

To make certain that thousands of qualified high school graduates go to college instead of training camp next fall, colleges and universities should provide opportunities for registration and enrollment before the September 22 deadline, friends of higher education in Washington urge.

File Now for Title to Surplus Housing Units

WASHINGTON, D.C — Institutions with surplus government housing units on their campuses should file for title to the property now, before the 120-day limit set by the McGregor Act expires. So urges the Public Housing Administration.

The administration says that colleges and universities have until October 26 to file applications for the housing units transferred to them under the legislation signed by the President on June 28. However, colleges gain by early application because they retain rents from the housing beginning with the first of the month following the date on which property rights are transferred to the school.

Government officials point out that to gain possession of the units, educational institutions must:

1. Own or control the land upon which the housing is located.

2. Submit a legal opinion certifying that they have authority to request and accept the transfer and operate the property.

3. Agree to give preference in filling vacancies to World War II veterans and service men who are students at the educational institutions.

Approval of the McGregor Act has been considered the most important enactment of the 80th Congress of interest to colleges and universities. In all, 128,614 housing units will be turned over to more than 700 schools.

Penalize Vets Dropping Out in Midsemester

WASHINGTON, D. C.—A new Veterans Administration ruling, in effect July 1, should discourage student veterans from dropping out of school in the middle of a semester.

Under the ruling, any veteran who drops out of school or college before the end of the period for which tuition has been paid by the government must:

1. Either refund the tuition that the V.A. paid for the time the veteran did not attend school; or,

2. Lose entitlement to the training time covered by the payments which the V.A. had made to the school.

The V.A. conceded that few veterans dropping out before the end of a refund period will make refunds. This, in turn, means that many veterans will lose blocks of training time to which they are entitled under the G.I. Bill of Rights.

Congress Enacts Four Laws Affecting Colleges

WASHINGTON, D.C.—Laws dealing with surplus property, detailing of military personnel to colleges, and fellowships and grants to universities to promote research in heart disease were among the enactments of the 80th Congress.

1. Approval of H.R. 5882 gives the army, air force and navy permanent authority to turn over to colleges and universities excess and obsolete government property for instructional purposes. Donations are to be made without cost to the educational institutions, except for packing, transportation and delivery.

Items which may become available under this law include books, machines, tools, mechanical equipment, small boats, aeronautical and electronics equipment. Donations will not be channeled through War Assets Administration offices, but through the U.S. Office of Education and state educational agencies for surplus property.

2. Another surplus property law (P.L. 652) gives the War Assets Administration authority to distribute athletic equipment declared surplus by the military establishment. W.A.A. officials admit, however, that "only a few thousand dollars' worth of sports material" will become available during the coming months.

3. Under P.L. 670, the regular army and air force now have permanent authority to detail soldiers and officers to colleges and universities for specialized training. The act permits 8 per cent of regular officer strength and 2 per cent of enlisted strength to be detailed as students.

4. Under a new law creating a National Heart Institute, the U.S. Public Health Service has authority to set

up fellowships and make grants to universities for research in heart disease. No funds were voted, but the surgeon general may use funds from his regular appropriations or request a special allotment from Congress when he is ready for his program.

Six Major Bills Fail to Pass Congress

WASHINGTON, D.C.—Six major pieces of legislation in which educators have an interest failed to pass the 80th Congress. These included bills on:

1. Federal aid to education—passed the Senate but blocked by the House Committee on Education and Labor.
2. Educational compacts giving Southern states the right to set up regional schools—passed the House but blocked by Wayne Morse on the floor of the Senate. The Oregon Senator argued that educational compacts would have given Congressional approval to segregation in the South.
3. Social security for educators and nonprofit workers—passed the House but died in the Senate committee on finance. The Senators claimed that the bill reached them too late in the session for action.
4. The national science foundation —passed the Senate but died in the House Rules Committee.
5. Workers education extension—blocked in the House committee on labor and education.
6. Aid to public libraries—opposed by the Republican leadership in the House as "unnecessary."

Pittsburgh Announces New Building Program

PITTSBURGH.—Plans for a $16,250,000 building program were announced by University of Pittsburgh officials recently at a dinner attended by 250 of Pittsburgh's civic and business leaders.

The university's planning and development committee reported a need for the immediate construction of eight new buildings, four of which would be erected on the grounds of the university. The medical school building, a building housing clinical wards and laboratories, and a nurses' home are planned for the medical center, and a fieldhouse is scheduled for construction near the Pitt stadium.

Double Trouble in Office of Education as Studebaker, Ewing Clash

WASHINGTON, D.C.—A disquieting atmosphere has settled over the U.S. Office of Education. Troubling the working staff of federal educationists are:

1. Resignation of John W. Studebaker, U. S. Commissioner of Education, following a sharp disagreement with his superior, Federal Security Administrator Oscar R. Ewing. The break came after Commissioner Studebaker insisted that the administrator cannot take away from the Office of Education functions assigned to it by law.
2. An order by Mr. Ewing, transferring educational publications and informational activities to the administrator's office. As a result, the monthly magazine, *School Life*, and the preparation of technical educational bulletins will go under the supervision of one of the administrator's assistants.

Commissioner Studebaker had protested this order on the ground that organic laws creating the Office of Education also authorized informational and publications functions and that these cannot be taken away from his office without Congressional approval.

However, Administrator Ewing answered that the move was necessary "because of the need to consolidate all the publication and reporting services among the several units of the agency." This action, he said, "is the first step in the direction of developing an integrated agency service."

Unofficial reports are circulating that among the next services that might be transferred from the Office of Education to the administrator's office are those dealing with films and radio, health education, and the auditing of vocational education grants.

End Educational Facilities Program

WASHINGTON, D.C.—The Veterans' Educational Facilities Program is writing "finis" to its two-year old activity, the Federal Works Agency and the U.S. Office of Education have announced.

Although the program will not officially die until September 30, officials stopped receiving applications from institutions serving veterans on July 15.

Since the program began in the summer of 1946, institutions needing help because of swollen veteran enrollments received $110,000,000 worth of teaching equipment and 17,000,000 square feet of classroom space.

250,000 Men Will be Inducted by June 1949

WASHINGTON, D.C.—Shortly after September 22, the army will begin inducting about 30,000 young men a month under the Selective Service Act of 1948.

In making this announcement at his Pentagon Building office, Secretary of the Army Kenneth Royall said that inductions will continue at this rate until the army has called 250,000 men during the year ending June 1949. In addition, the army is authorized to accept 110,000 18-year-old voluntary trainees for a year of training.

The expanded army will require about 20,000 additional officers, especially lieutenants and captains.

The navy and the air force are not expected to get any of the draftees since they will be at their authorized strength through voluntary enlistments.

Secretary Royall gave this picture of army life as the new soldiers may expect it:

Whether the soldiers enter the army by volunteering or the draft, they will first be sent to induction stations near their homes. There, they will be given a physical examination and an interview. Then they will go to one of eight training centers to be located in California, South Carolina, New Jersey, Kentucky, Arkansas, Kansas and Virginia.

After completing eight weeks of basic training the soldier will be continued on duty in this country or be sent overseas. (Eighteen year olds remain on the continent.)

On completion of their basic military training some soldiers will be given advanced technical schooling in clerical or mechanical work. Talented soldiers may be sent to technical schools for advanced training in military specialties.

Discipline? Yes, the new army will have discipline, said Secretary Royall. But he defined it as "willing obedience of the informed soldier who knows and understands why certain things are expected of him."

Michigan's War Memorial Will be Research Center

ANN ARBOR, MICH.—University of Michigan's plans for a war memorial have received the approval of the United States Atomic Energy Commission and the medical services division of the Office of Naval Research.

The plans call for a research center devoted to peacetime uses for atomic energy. Board of regents' approval has been given to the recommendation for such a center made by a special committee appointed to consider proposals for a memorial to the students, alumni and staff who died during the war.

The Atomic Energy Commission, through Carroll L. Wilson, the general manager, declared such a center would be a welcome addition to the research facilities of the nation. "The commission applauds the decision to further knowledge in this new field and the intent to explore the beneficial potentialities of atomic energy," Mr. Wilson said. "From the proposed center may come an answer to some of the urgent biological problems of today."

Special laboratories and workrooms, entered through a memorial rotunda, would be constructed to house the research work. While emphasis would be placed on medicine and science, the social sciences and humanities would also have a part. In addition, there would be an organized information exchange service available for specialists who are working independently in the various fields.

In making the announcement, Alexander G. Ruthven, president of the university, said that plans will be completed during the summer for obtaining funds to finance the memorial. He said it will be an ever-growing project, probably starting with $2,000,000 or more.

U. of I. Ups Its Budget $3,282,071

URBANA-CHAMPAIGN, ILL.—A budget of $37,701,592 for all activities of the University of Illinois for the fiscal year starting July 1 has been adopted by the board of trustees. This is $3,282,071 more than for the current period.

With income for the year estimated at $38,731,227, the trustees also set aside $803,000 as a reserve for nonrecurring purposes and $226,635 as an operating reserve.

The university's enrollment is at an all-time high and other services are expanded. Academic staff additions provided in the budget include the equivalent of 168 full-time persons at Urbana-Champaign, thirty in the Chicago professional colleges, four in the Chicago undergraduate division, six in the Galesburg undergraduate division, and 117 on the nonacademic staff.

Ohio State Y.M.C.A. Cleared of Charges

COLUMBUS, OHIO.—An Ohio State University faculty committee recently reported that its investigation of the university Y.M.C.A. had revealed no evidence that it was being used by student members for communist propaganda, or that any of the three secretaries are communists or have ever held communist views.

In a report to President Howard L. Bevis, the three-member committee summarized its findings under ten main points. This group was appointed April 1 and the investigation was undertaken after charges were made in a Columbus newspaper that the Y.M.C.A. at the university was one of "three main centers of communist party activity in Columbus."

Members of the investigating committee were Dean Charles E. MacQuigg of the college of engineering, chairman; Vice President Bland L. Stradley, and Prof. Francis R. Aumann. The investigation was made during the months of April and May.

Civil Service Exams

WASHINGTON, D.C.—The U.S. Civil Service Commission announced an examination for advisers in education. The positions pay from $7102 to $9975 a year.

Sorry, Sirs and Mesdames

No more reservations can be accepted for the College Food Service Institute to be held in Chicago, July 26 to 28, under the joint sponsorship of Northwestern University and College and University Business. All available space was snapped up even before the program was completed.

Modular Coordination Again in the News

WASHINGTON, D.C.—A term with a twenty-five year old history, "modular coordination," is being heard more and more frequently in government building circles. Housing and Home Finance Agency officials say that modular coordination is now at the stage where it may bring about lower construction costs. They define the term as the use of standardized building materials that fit easily together to make up a structure.

"Certainly, school executives launching large scale building programs should at least consult with their architects to see whether modular design can be employed," says Leonard G. Hager, head of the technical staff of the H.H.F.A.

At the present time one of the largest contractors in the country, the U.S. Corps of Engineers, is applying the principles of modular design.

Executives wishing to become acquainted with the fast-growing movement of modular coordination may write either to the Housing and Home Finance Agency, Washington 25, D.C., or the American Standards Association, 70 East 45th Street, New York 17.

Dr. Nelson Glueck Heads Merged Jewish Schools

NEW YORK CITY.—Dr. Nelson Glueck, president of the Hebrew Union College in Cincinnati, the oldest rabbinical seminary in the country, will become president of both the Cincinnati institution and the Jewish Institute of Religion in New York City as the result of a merger of the two organizations. Rabbi Stephen S. Wise, founder of the Jewish Institute of Religion and its president, becomes president emeritus.

The consolidation was achieved "to unite for the strengthening and advancement of Judaism in America and throughout the world." The united institution will continue under a uniform program to maintain schools in Cincinnati and New York.

Hebrew Union College is now in the midst of an $8,000,000 expansion of its facilities. Founded in 1875 by Isaac Mayer Wise, the college has ordained more than 500 rabbis, 350 of whom are now serving congregations in the United States.

NEWS

Army Simplifies Research Contract Negotiations

WASHINGTON, D.C. — Institutions that have contracts with the army for research projects should, in the near future, have an easier time in their negotiations with the Pentagon.

A twelve-man civilian committee for simplifying contract negotiations between the army and educational institutions will make its recommendations to the secretary of the army on August 15. When put into effect, probably by January 1949, the recommendations should bring about "better, simpler and more easily understood procedures in dealings between contracting institutions and the military," says the army's research and development division.

The committee is headed by Robert B. Stewart, vice president of Purdue University.

At its last Washington meeting, on June 27, the Stewart committee said that its simplified procedures should "buy better and more research for the public dollar."

It is understood that the new procedures will seek to bring down administrative costs of research projects, with savings applying both to the contracting universities and to the army. The procedures will also "seek to bring down costs arising from misunderstandings," and will clarify questions on patents and copyrights, promptness of payment, security regulations, and claims.

Wills $1,000,000 to Aid Students at Michigan

ANN ARBOR, MICH.—Crapo C. Smith, son of a former governor of Michigan, recently willed the University of Michigan $1,000,000.

Since 1937, when Mr. Smith, a graduate of the university's law school in 1896, asked for permission to live at the student union, he had become a familiar figure around the campus and enjoyed the privileges of a student.

University officials were much surprised at the gift, inasmuch as they never suspected that Mr. Smith was wealthy. In his will he asked that the fund be used as gifts, loans, scholarships and rewards of merit for University of Michigan students. He requested that the fund not carry his name and that loans from it should be based on private inquiry rather than on the basis of competitive examinations.

Penn State Will Remodel Farm for College Use

STATE COLLEGE, PA.—Pennsylvania State College officials have announced the acceptance of a gift by Mrs. Mary B. Behrend of Glenhill farm, which comprises 400 acres and a Dutch Colonial summer home near Erie, Pa. Mrs. Behrend is the widow of Ernst R. Behrend, one of the founders of the Hammermill Paper Company.

Glenhill farm will be known as "Behrend Center" and will be used as an extension school of Pennsylvania State College. The college will spend $50,000 in adapting the Behrend summer home for use. The garage will become a chemistry laboratory and the big barn on the estate will be remodeled into classrooms and laboratories.

Resident faculty members will be housed in the spacious Behrend home, which is well supplied with library facilities.

Foreign Students Total 20,000

WASHINGTON, D.C.—Recent reports from the Washington bureau of the Institute of International Education and their consensus taken by the Committee on Friendly Relations Among Foreign Students in New York reveal a total of 20,000 students from foreign countries now enrolled in 955 colleges and universities throughout the United States. This represents an increase of 6000 students over last year. Largest foreign student registration is reported by New York with 3,882. California, Massachusetts, Michigan, Illinois and Pennsylvania follow in that order.

$1,000,000 Trust Fund

CHICAGO.—Loyola University recently received a gift of $1,000,000 from Frank J. Lewis, local businessman. Mr. Lewis expressed the desire that the gift be used to set up a trust fund with an annual income of $50,000 for maintenance of the new Stritch School of Medicine. It is conditional upon the university's raising additional funds sufficient for operation of the school.

New Act Bans Hobby Courses for Veterans

WASHINGTON, D.C. — Avocational and recreational courses are banned for veterans under the 1949 appropriations act for the Veterans Administration. What constitutes avocational and recreational courses, however, has not yet been decided. Legal authorities in the V.A. are cautious in coming to a decision on this point.

"Training" in ballroom dancing, art appreciation courses, and other activities which do not have a direct vocational purpose for the veteran have been under attack on Capitol Hill. Bureau of the Budget officials have estimated that "hobby" courses have cost the government $200,000,000 a year. This figure includes the costs of flying and aviation courses, although flying is not affected by the new restrictions.

The 1949 V.A. appropriations act contains this rider:

"Training for the purpose of teaching a veteran to fly, or related aviation courses in connection with his present or contemplated business or occupation, shall not be considered avocational."

Two Texas Negro Colleges to Merge

NASHVILLE, TENN. — The trustees of Wiley College, Marshall, Tex., and of Samuel Huston College, Austin, Tex., have voted unanimously to merge these two Methodist institutions, according to Dr. M. S. Davage, head of the department of institutions for Negroes of the Methodist Board of Education.

The merged institution will be located at Marshall, Austin or at some other Texan city that offers superior advantages for the development of a strong, fully accredited Church related liberal arts college.

Wiley was the first Negro college organized west of the Mississippi River and also the first in the region to be accredited by the Southern Association of Schools and Colleges. Samuel Huston College is the youngest and farthest west of the Methodist Church's Negro colleges. It was founded in 1900 in connection with the western movement of the Negro population.

The combined enrollment of the schools is 1400; the annual budgets approximate $700,000.

Government Issues New Monthly Publication

WASHINGTON, D. C.—A quick, easy way for college executives to keep abreast of economic trends is through a new government monthly, *Economic Indicators*.

The periodical is the answer to the busy administrator who wants an official summary of economic trends as seen by the President's Council of Economic Advisers. The publication was approved by the 80th Congress during the hurried closing hours of its last session.

The June issue of *Economic Indicators* included simplified charts and tables on the nation's economic budget, consumer prices, employment, labor force, industrial production, new construction, national income, corporate profits, personal income, money supply, bank loans, and investments.

The monthly publication will be available from the Government Printing Office, Washington 25, D.C., at a price yet to be determined by the superintendent of documents.

Overseas Students Sought in Campaign

WASHINGTON, D.C.—"Enrich your campus by bringing a foreign student for work and study next year."

This is the current popular slogan among Washington leaders in international education. They point out that $400 will pay for the transportation for a foreign student from Europe to the United States. In many instances this sum can be raised by voluntary effort, through the leadership of college executives.

Once in the United States, other costs for maintaining the foreign visitor can be raised through student and faculty efforts, Washington educators say. In some cases, the overseas student will earn his board and room and will be provided books and clothing through student clubs.

Foreign students may be used to assist in language and other departments, not exceeding 10 a week.

The American Association of Colleges for Teacher Education is among the groups actively promoting the "bring-a-foreign-student-here" campaign. Dr. Grady Gammage, Arizona State College, Tempe, has more details on the project.

No Mention of Physical Ed., Charges General

BALTIMORE.—The lack of a program of physical education in the report submitted by the President's Commission on Higher Education resulted in sharp criticism recently by Maj. Gen. Maxwell Taylor, superintendent of the U.S. Military Academy at West Point, N.Y.

Gen. Taylor, in addressing a regional meeting of the American Association for Health, Physical Education and Recreation, stated: "Health and mental adjustment are surely as essential to the well-being of our nation as intellectual discipline. Yet, oddly enough, I find in these postwar treaties little appreciation of the need for an expanded physical education program to go hand in hand with the other elements of a general education."

Gen. Taylor said the Harvard Report on general education in a free society failed even to mention physical education in its overall program.

NAMES IN THE NEWS

Dr. France V. Scholes, dean of the graduate school at the University of New Mexico, has been named academic vice president of the university, according to a recent announcement by President Tom L. Popejoy. At the same time, President Popejoy announced that **Richard E. Strahlem** of the College of Business Administration had been named to the post of acting comptroller.

F. V. Scholes

R. E. Strahlem

Dr. Otto F. Kraushaar, professor of philosophy at Smith College, has been named president of Goucher College to succeed **Dr. David Allan Robertson,** who retired after eighteen years of service at the college. Dr. Kraushaar's appointment became effective July 1.

Ernest A. Lilley of Poughkeepsie, N.Y., has been appointed director of public relations at Florida Southern College, Lakeland, Fla. Mr. Lilley had been active in public relations work prior to his appointment.

Dr. Arthur S. Flemming, a member of the U.S. Civil Service Commission since 1939, has been named president of Ohio Wesleyan University. He is the first layman and first alumnus to head the 106 year old university. After officially assuming his new office on September 1, he will continue as a member of President Truman's commission for studying the reorganization of the executive branch of the federal government. Dr. Flemming succeeds **Dr. H. J. Burgstahler,** who became chancellor of Ohio Wesleyan University in June 1947.

Dr. Walter H. Durfee, acting president of the Colleges of the Seneca since the death of **Dr. John M. Potter** in January 1947, has been named provost of the Colleges of the Seneca (Hobart and William Smith colleges). **Dr. Alan W. Brown,** assistant to the dean of Columbia College, Columbia University, will be formally inaugurated as president of Hobart and William Smith colleges this fall.

P. W. Kasch, a member of the staff of the University of Illinois business office, has been named business manager of Illinois Wesleyan University. His appointment became effective July 15.

Dr. Boyd M. McKeown, secretary of the department of public relations of the Methodist Board of Education, and director of the joint committee on public relations for Methodist educational institutions, has received the 1948 member award for distinguished service in the interpretation of education from the American College Public Relations Association. The award was made at the annual banquet, held at Denver in connection with the thirty-first annual convention of the association.

Hurst R. Anderson, former president of Centenary Junior College in Hackettstown, N. J., has been named president of Hamline University to succeed **Charles Nelson Pace.** Mr. Anderson's appointment became effective after Dr. Pace's retirement on July 1.

NEWS

John F. White, dean of students at Illinois Institute of Technology, has been named dean in charge of development, according to a recent announcement by President Henry T. Heald. The appointment became effective July 1. In his new position, Dean White will be concerned with the institution's $15,000,000 development program which is transforming 100 acres of Chicago slum area into a modern, functional study, living and work unit for education and research.

Dr. Robert C. Clothier, president of Rutgers University, recently received the Advertising Club of New Jersey's annual award of a plaque as the "outstanding citizen in the state in 1947".

Jess Harrison Davis, professor of experimental engineering at Clarkson College of Technology, has been named the president to succeed **John A. Ross Jr.,** who retired recently.

Rev. Wallace McPherson Alston, pastor of the Druid Hills Presbyterian Church at Quakertown, Pa., has been named president of Agnes Scott College to succeed **James R. McCain** on July 1, 1951, when the latter will retire. Dr. Alston has also been named vice president of the college and will assume his duties in September.

Dr. Lawrence A. Riggs, dean of students at Willamette University, Salem, Ore., has been named DePauw University's first dean of students, according to a recent announcement by Dr. Clyde E. Wildman of DePauw. Dr. Riggs will assume his duties in September.

Charles Watson Burts, dean of Meredith College in North Carolina, has been named president of Shorter College, Rome, Ga., His appointment became effective July 1. **Dr. Paul M. Cousins** resigned to accept a faculty appointment at Mercer University.

Dr. Douglas McGregor, professor of psychology at Massachusetts Institute of Technology and executive director of the industrial relations section at M.I.T., was recently named president of Antioch College in Yellow Springs, Ohio. He succeeds **Dr. Algo D. Henderson,** who has recently accepted the post of associate commissioner of education in charge of higher education for the state of New York. Dr. McGregor, the 665th person whose qualifications had been reviewed by the board of trustees for the Antioch presidency, is 41 years of age.

Edward Olson, auditor for the North Dakota State Board of Higher Education, has been named business manager of the University of North Dakota to succeed the late **J. W. Wilkerson.** Mr. Olson's predecessor at the University of North Dakota had been appointed business manager of that institution in 1906 and held the position continuously until his death recently.

Dr. Herbert J. Davis, president of Smith College, recently announced his resignation to take effect in June of 1949. Dr. Davis asked the board of trustees to appoint a committee to select a successor to the presidency since he wished to devote himself entirely to scholarly pursuit without administrative responsibilities.

Ralph E. Noble, state commissioner of education for Vermont, has been named president of Vermont Junior College to succeed **John H. Kingsley.** Mr. Noble's appointment becomes effective July 1, 1949.

Dr. Arnold Joyal, dean of the college of education, University of Oklahoma, has been appointed president of Fresno State College and will assume his new duties on August 1. He succeeds **Frank W. Thomas,** who retired on June 1 after twenty-three years of service as president of the California institution.

Dr. Nelson Hume, founder and headmaster of Canterbury School at New Milford, Conn., died recently at the age of 67 years. For many years he had been a pioneer in Catholic education in his capacity as headmaster at Canterbury, a Catholic preparatory school for boys.

DIRECTORY OF ASSOCIATIONS

Association of College and University Business Officers

Central Association

President: Herbert Watkins, University of Michigan; secretary-treasurer: L. R. Lunden, University of Minnesota.

Eastern Association

President: Henry W. Herzog, George Washington University; secretary-treasurer: Boardman Bump, Mount Holyoke College.
Convention: Nov. 28-30, Mayflower Hotel, Washington, D.C.

Southern Association

President: W. T. Ingram, Alabama Polytechnic Institute; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Western Association

President: Paul A. Walgren, University of Southern California; secretary-treasurer, George A. Hall, California Institute of Technology.

Schools for Negroes

President: V. D. Johnston, Howard University; secretary: L. H. Foster Jr., Tuskegee Institute.

Association of College Unions

President: Vernon L. Kretschmer, University of Illinois; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Association of Physical Plant Administrators of Universities and Colleges

President: William F. Holman, University of Minnesota; secretary-treasurer: A. F. Gallistel, University of Wisconsin.
Convention: May 1949, University of Arkansas, Fayetteville.

American College Public Relations Association

President: Horace Reneger, Tulane University; secretary-treasurer: Max E. Hannum, Franklin and Marshall College.

National Association of College Stores

President: John H. Jenkins, St. Louis University; executive secretary: Russell Reynolds, 189 West Madison Street, Chicago.

National Association of Educational Buyers

President: Charles W. Hoff, University of Omaha; secretary-treasurer: Bert C. Ahrens, 45 Astor Place, New York, N. Y.

PRODUCT INFORMATION

Information on the materials, equipment and supplies with which an institution is built, operated and maintained and which are used in its various departments is of vital interest to those charged with the business operation. College and University Business recognizes the importance of this information and believes it has rendered a real service by grouping manufacturers' announcements and new product descriptions into a separate part of the magazine. We believe this is an infinitely better plan than to mix such information through the editorial pages where it becomes obscure and confusing.

You will find manufacturers' advertisements from pages 45-72. Pages 68-71 contain descriptions of new products and items of interest. Further details on any product advertised or described may be obtained without obligation and with a minimum of effort by use of the postcard below.

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Film Cement

177 Webber Glass Washer Co.
Webber Glass Washer

178 Wyandotte Chemicals Corp.
Wyandotte Skortex

179 Oakite Products, Inc.
Oakite Composition No. 83

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181 Firm-O-Lid Pot, Inc.
Pottery and Plastic Tea Pot

182 United States Vending Corp.
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186 Amcoin Corp.
Chocolate Dispenser

187 U. S. Industrial Chemicals, Inc.
Insecticide Concentrate

188 Hild Floor Machine Co.
Hild Shower-feed Machines

189 The Turner & Seymour Mfg. Co.
Hide-It Sash Balance

190 The C. H. Dutton Co.
Economist Steam Generator

191 The Savogran Co.
Non-Inflammable Paint Remover

192 Newcomb Audio Products Co.
Portable Transcription Player

193 West Disinfecting Co.
"An Ideal Washroom Maintenance Service"

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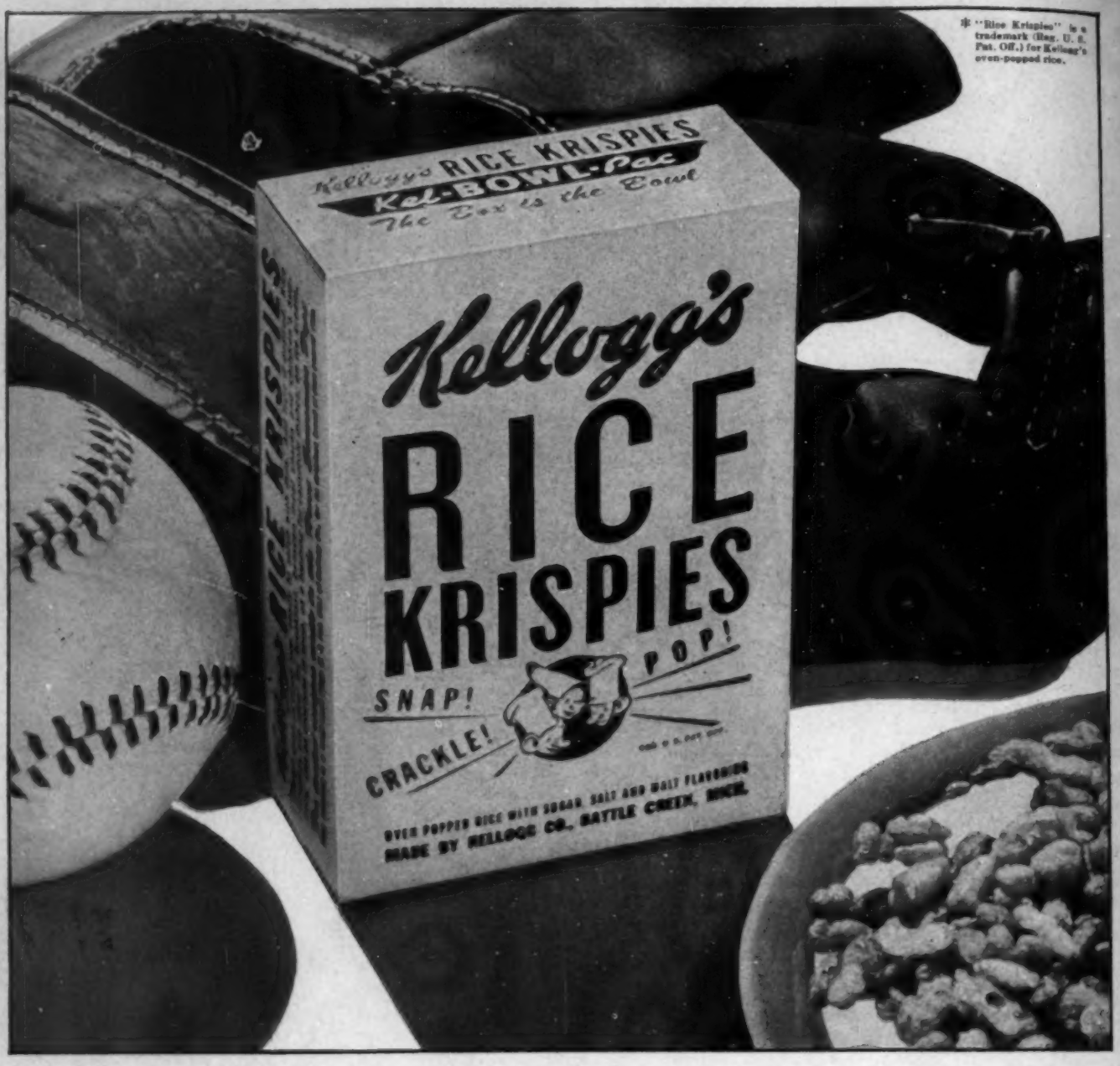

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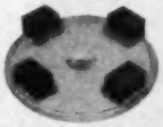

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THE MOTOR-WEIGHTED MACHINE THAT GIVES YOU

8-Way Adaptability!

Those who need a motor-weighted floor-maintenance machine will find that they can do more—and thus save more on labor costs—with a *600 Series Finnell*. This general-purpose *Finnell* can be used to wet-scrub, apply wax, polish, scrub rugs, steel-wool, dry-scrub, sand, and grind!

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Combination V-belt and gear case speed reduction assures transmission flexibility . . . alleviates strain on motor and gears. G. E. Drip-Proof Capacitor Motor . . . Timken Bearings . . . ruggedly constructed worm drive in extra-capacity leak-proof gear case, lubricated for 2500 hours. Smooth and noiseless in performance . . . a precision product throughout. Four sizes: 11, 15, 18, and 21-inch brush diameter.

The nearby *Finnell man* is readily available for free floor survey, demonstration, or consultation . . . and for training your maintenance operators in the proper use of *Finnell* equipment. Phone or write nearest *Finnell* branch or Finnell System, Inc., 4407 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

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Chairs illustrated are No. 4302 (left) and No. 5415 (right).

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FOR student's rooms, choose modern chairs—Goodform Aluminum Chairs.

Goodform spells smartness and style. Sparkling natural aluminum contrasts effectively with colorful upholstery, harmonizes with any decorative scheme.

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Just as important, Goodform chairs stay comfortable. Welded aluminum frames are permanently rigid and strong. They are fireproof and light in weight. Edges do not get rough and splintery, to catch nylon hose and clothing. Thousands of Goodform Aluminum Chairs in service ten, fifteen years and longer, are just as serviceable and comfortable today as they were when new.

Goodform Nos. 4302 and 5415 shown here are two of a complete line of chairs for school and institutional use. Write for illustrated literature and the name of the distributor who is prepared to take care of your chair needs.

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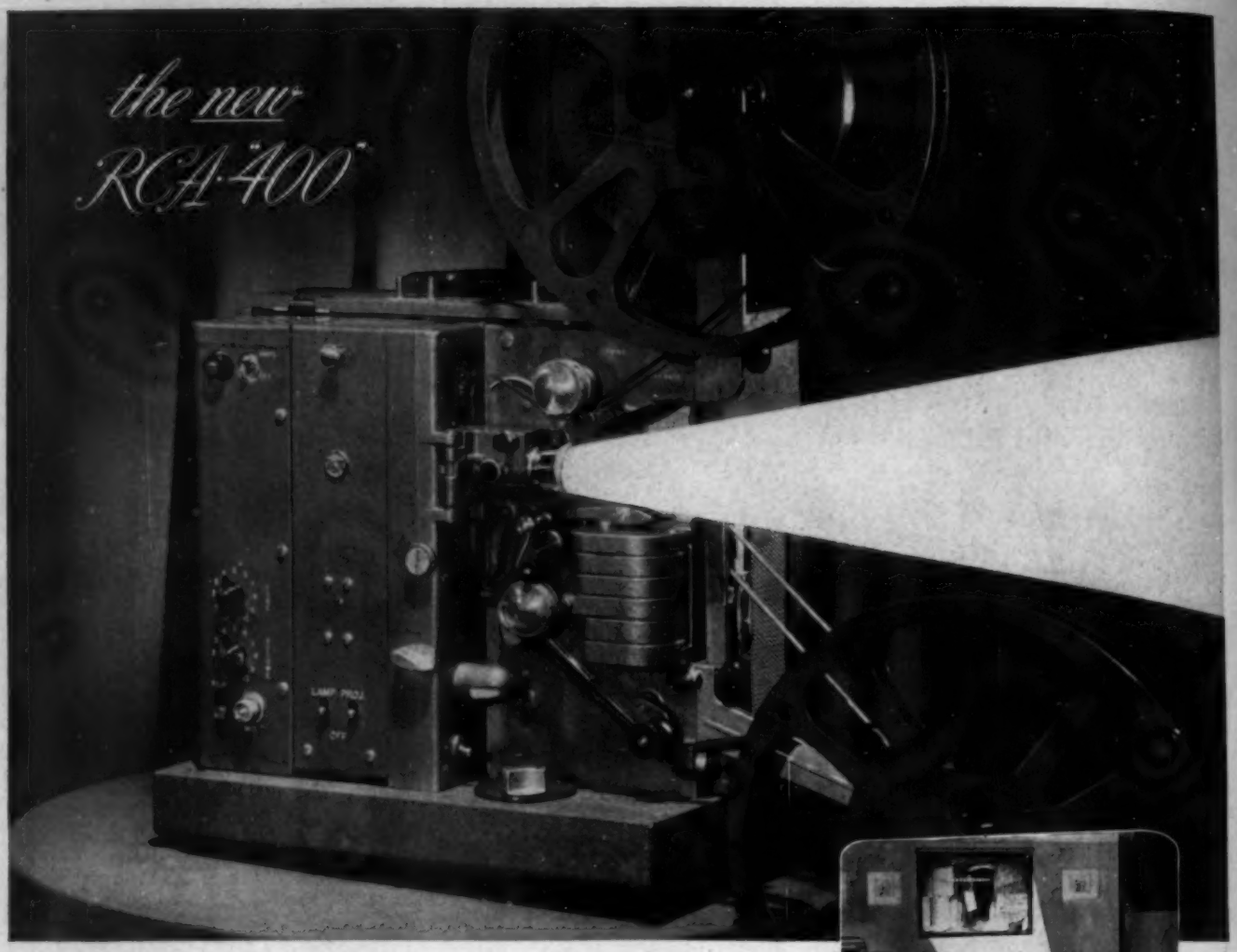

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• This new RCA 16mm Sound Projector was designed and engineered as an ALL-PURPOSE projector to cope with today's teaching demands and curriculum overload. It speeds up the learning process, makes it more effective.

The RCA "400" brings professional quality projection to your sound and silent films. Screen images are much more brilliant, have greater contrast and definition.

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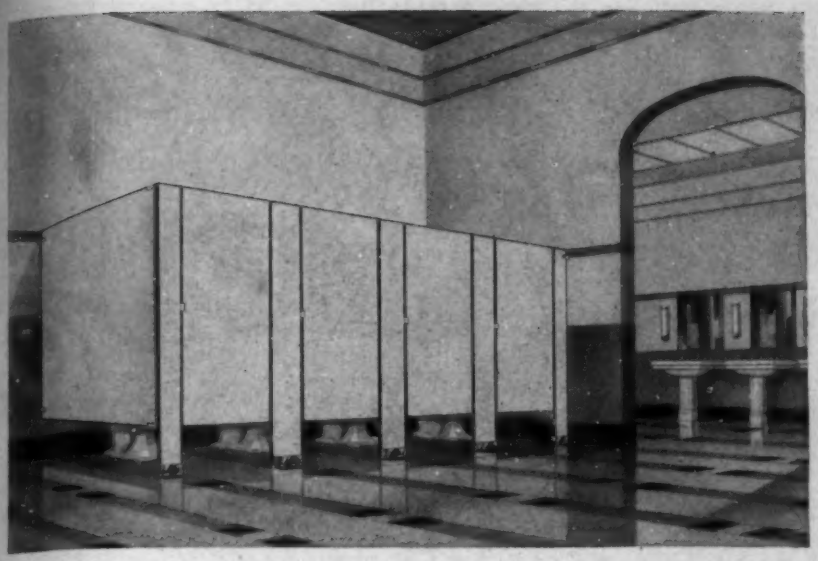

Sanymetal Normandie Type Toilet Compartments impart a moderately streamlined effect to a toilet room environment. Streamlined design wedded to utility fulfills all requirements. Unadorned utility no longer satisfies a public accustomed to bathrooms embodying varying degrees of modernity and elegance.

Available in three finishes: (1) "Porcena" (porcelain on steel); (2) "Tenac" (baked-on paint enamel finish over galvanized, bonderized steel); (3) baked-on paint enamel finish over regular furniture finish, cold rolled steel. "Porcena" (porcelain on steel) is available in a variety of standard colors.

THE TOILET ROOM ENVIRONMENT *affects the utility* OF A BUILDING

The treatment of a toilet room environment is no longer secondary to its utility. Blending the utility of toilet facilities with appropriate toilet room surroundings results in environments that are in keeping with other modern interior environmental treatments. Toilet compartments usually dominate a toilet room and influence its environment. Resuming a pre-war practice, Sanymetal again offers several different types of toilet compartments for creating the most suitable toilet room environment for every type of educational building. Sanymetal "Porcena" Toilet Compartments are fabricated of the ageless, ever-bright material, porcelain on steel, and embody the results of over 34 years of specialized skill and experience in making over 80,000 toilet compartment installations. Ask the Sanymetal Representative in your vicinity for information about planning suitable toilet room environments in new or old buildings.

THE SANYMETAL PRODUCTS COMPANY, INC.
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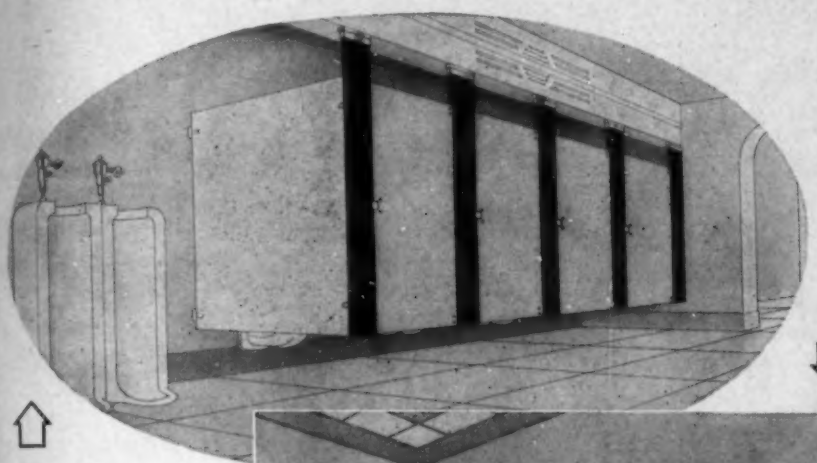
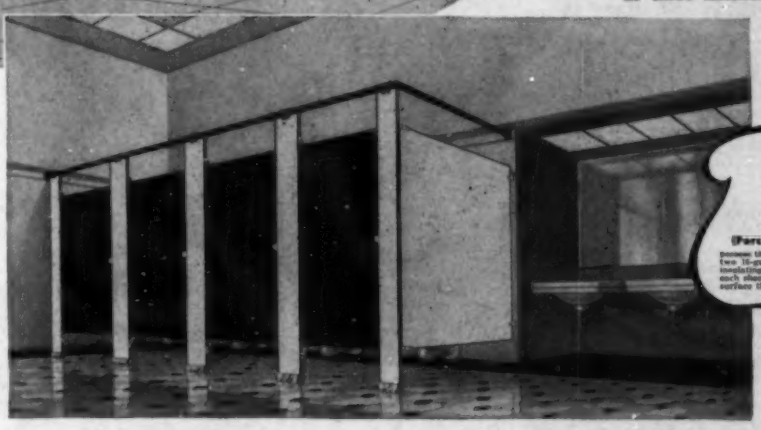


Sanymetal Academy Type Toilet Compartments provide a certain distinctiveness. This type of partition is the only one in which all the dignity and distinctiveness of standard flush type construction, unmarred by posts, is appropriately combined with headrail. These toilet compartments are available in three finishes: (1) "Porcena" (porcelain on steel); (2) "Tenac" (baked-on paint enamel finish over galvanized, bonderized steel); (3) baked-on paint enamel finish over regular furniture finish, cold rolled steel.



Sanymetal Century Type Ceiling Hung Toilet Compartments are particularly appropriate for schools. They impart dignity, refinement, and cheerfulness to the toilet room environment. They make up into a rigidly fixed installation. Available in three finishes: (1) "Porcena" (porcelain on steel); (2) "Tenac" (baked-on paint enamel finish over galvanized, bonderized steel); (3) baked-on paint enamel finish over regular furniture finish, cold rolled steel.

Sanymetal*
"PORCENA"
(Porcelain on Steel) TOILET COMPARTMENTS

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TOILET COMPARTMENTS

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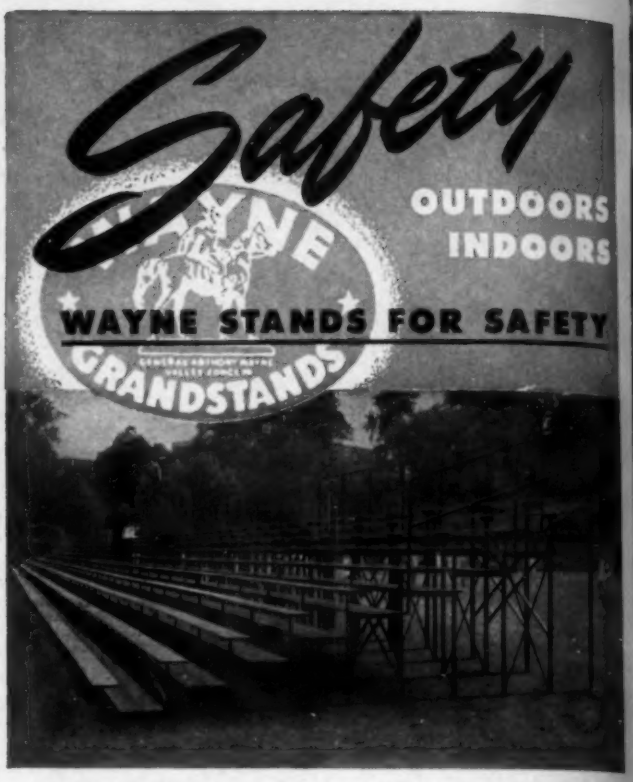

TYPE "H"—Made, at present time, in 15 ft. units, up to 15 rows high. Units up to 6 rows can be moved bodily without dismantling.

FOR assurance of absolute safety, your best bet is a Wayne Grandstand. And, in addition to safety, it offers economy and comfort as well. Representative of the wide line of Wayne stands are the Type "H" Portable Steel Grandstand for outdoors and the Rolling Gymstand for gymnasium use—either offers the *safest* seating you can buy.

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ROLLING GYMSTAND—One continuous operation by one person opens or closes the Rolling Gymstand.

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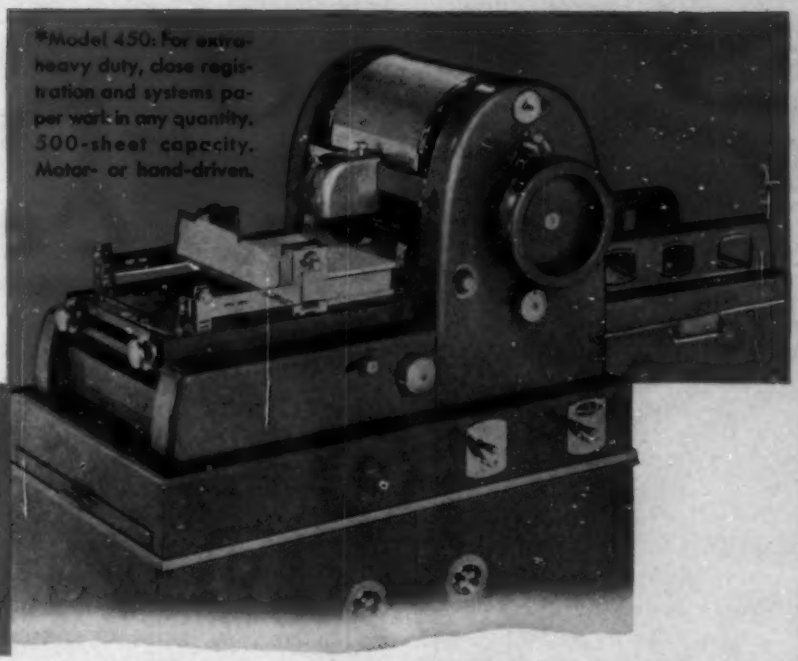
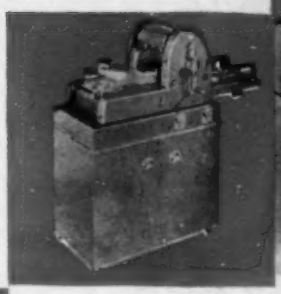


*Model 450: For extra-heavy duty, close registration and systems paper work in any quantity. 500-sheet capacity. Motor- or hand-driven.



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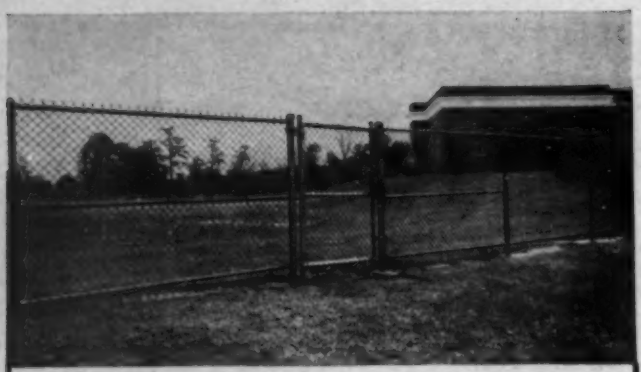

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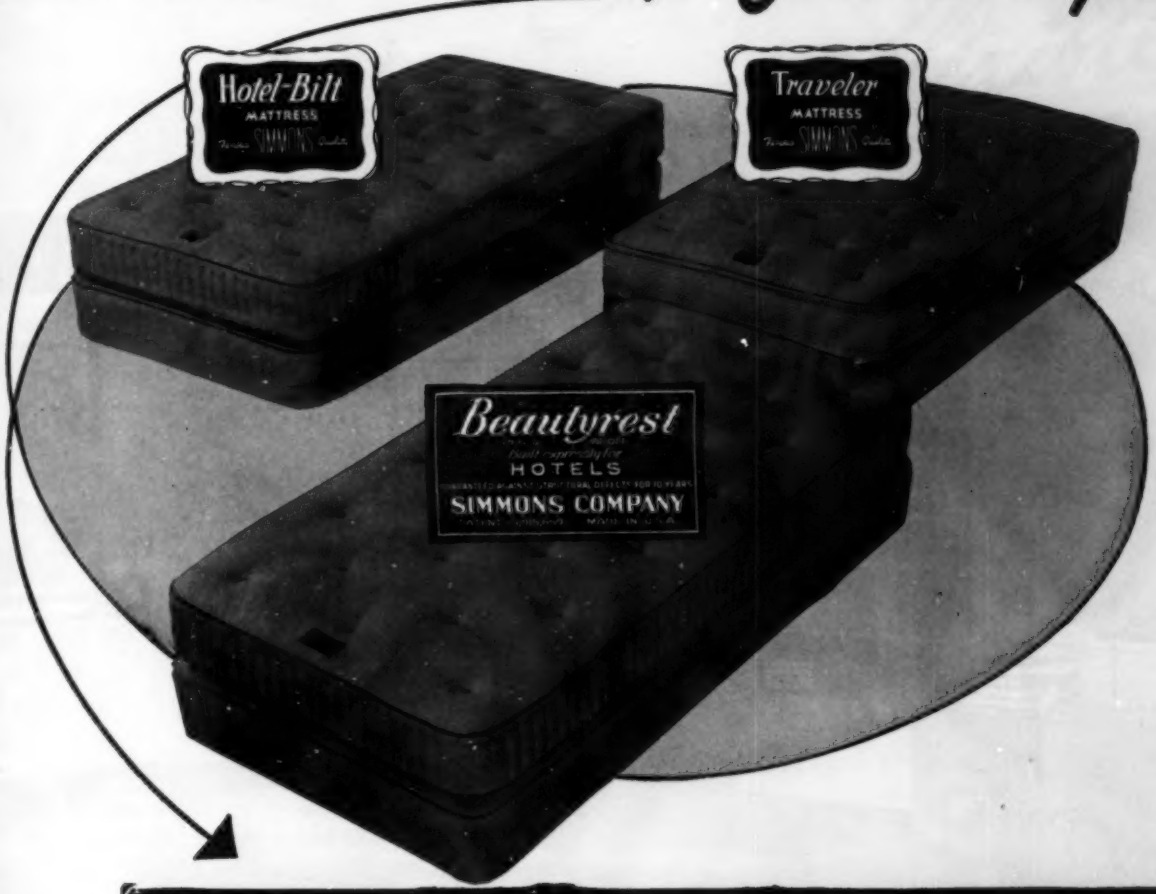

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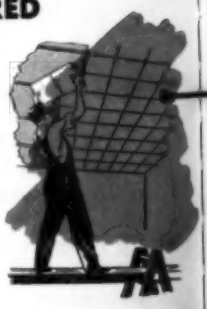

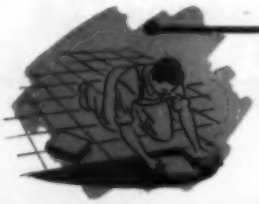

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"Structurally flexible"

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HERE IS CONSTRUCTION that sets new standards of architectural beauty and at the same time meets the long-existing need of schools and colleges for *complete structural flexibility*.

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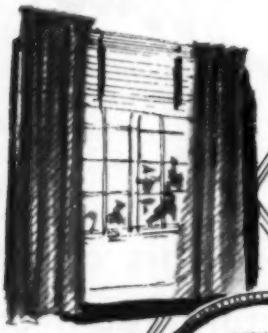

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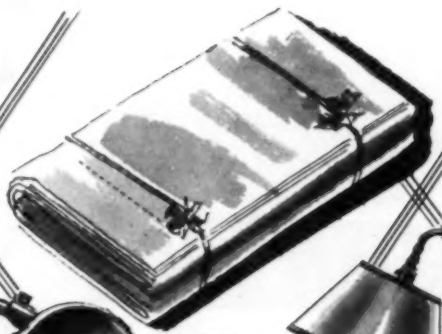

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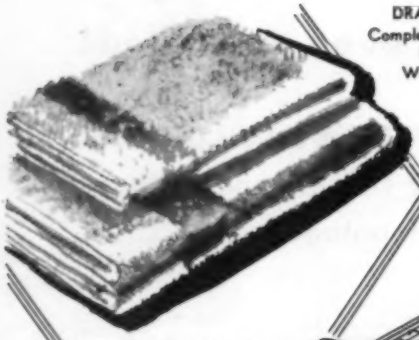

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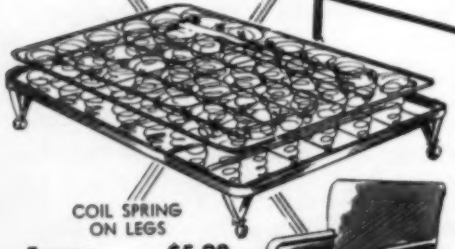

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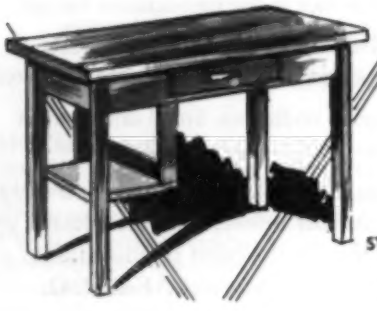

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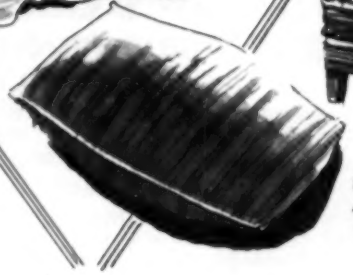

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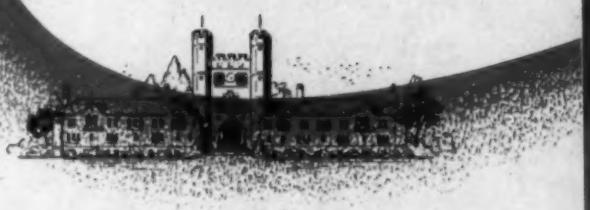

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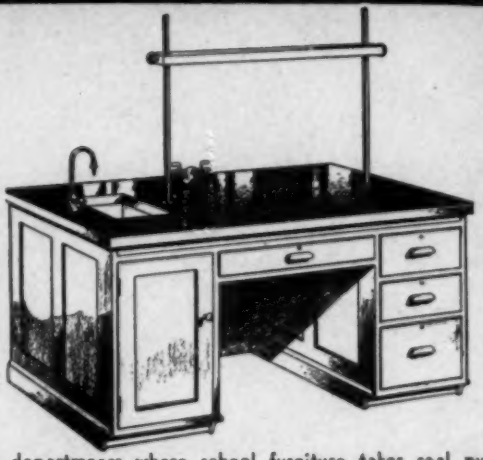

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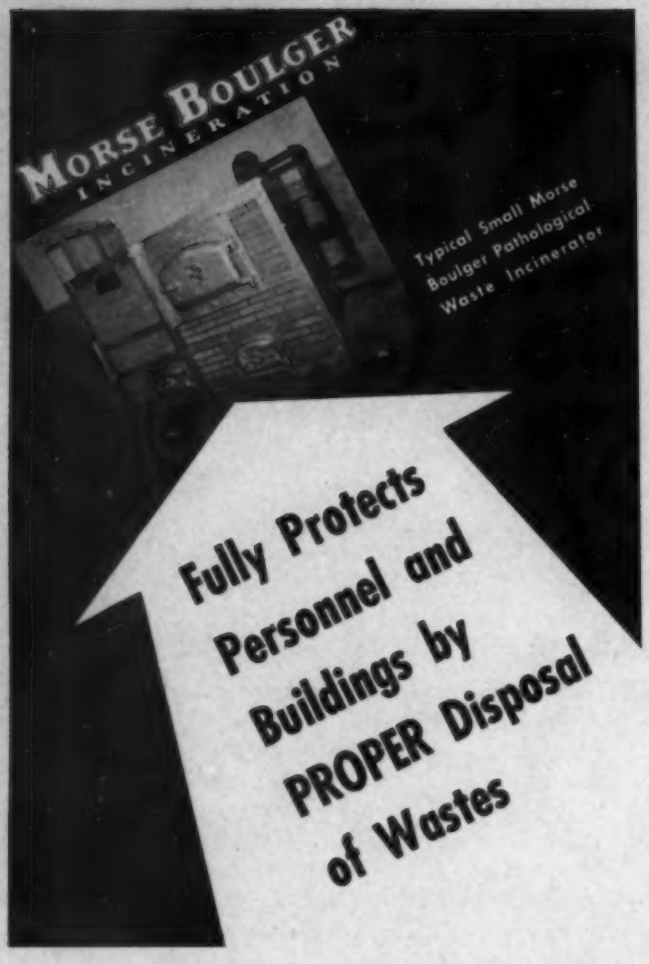
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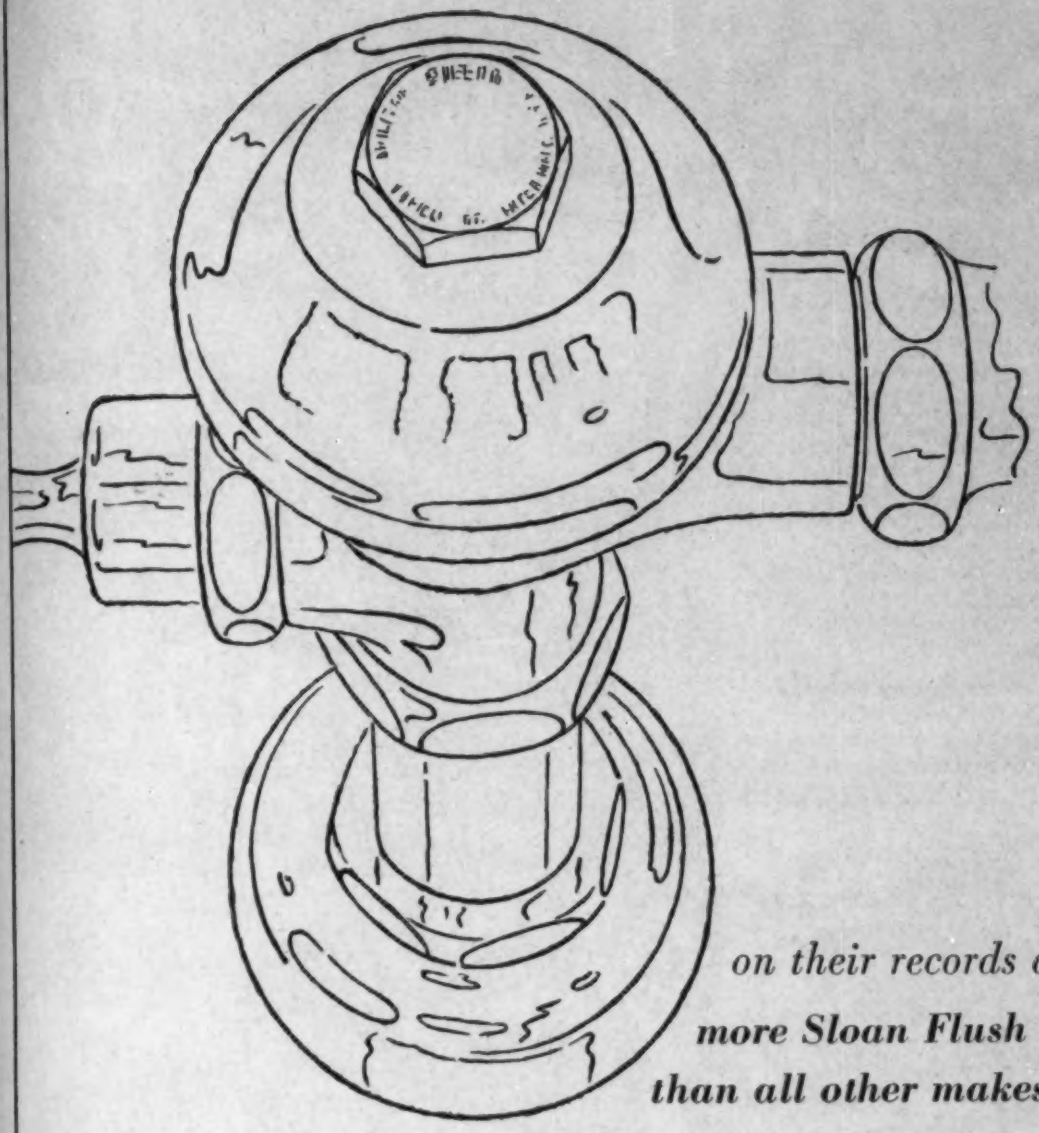

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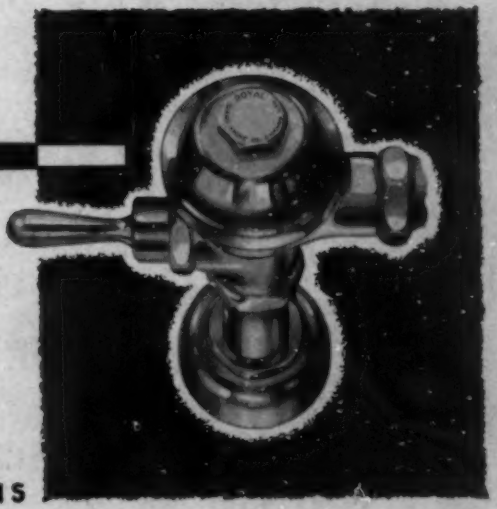

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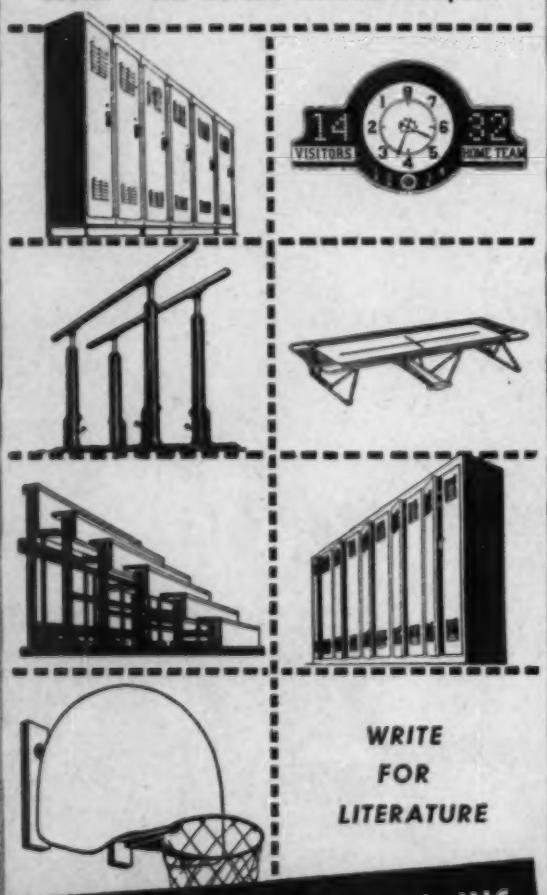

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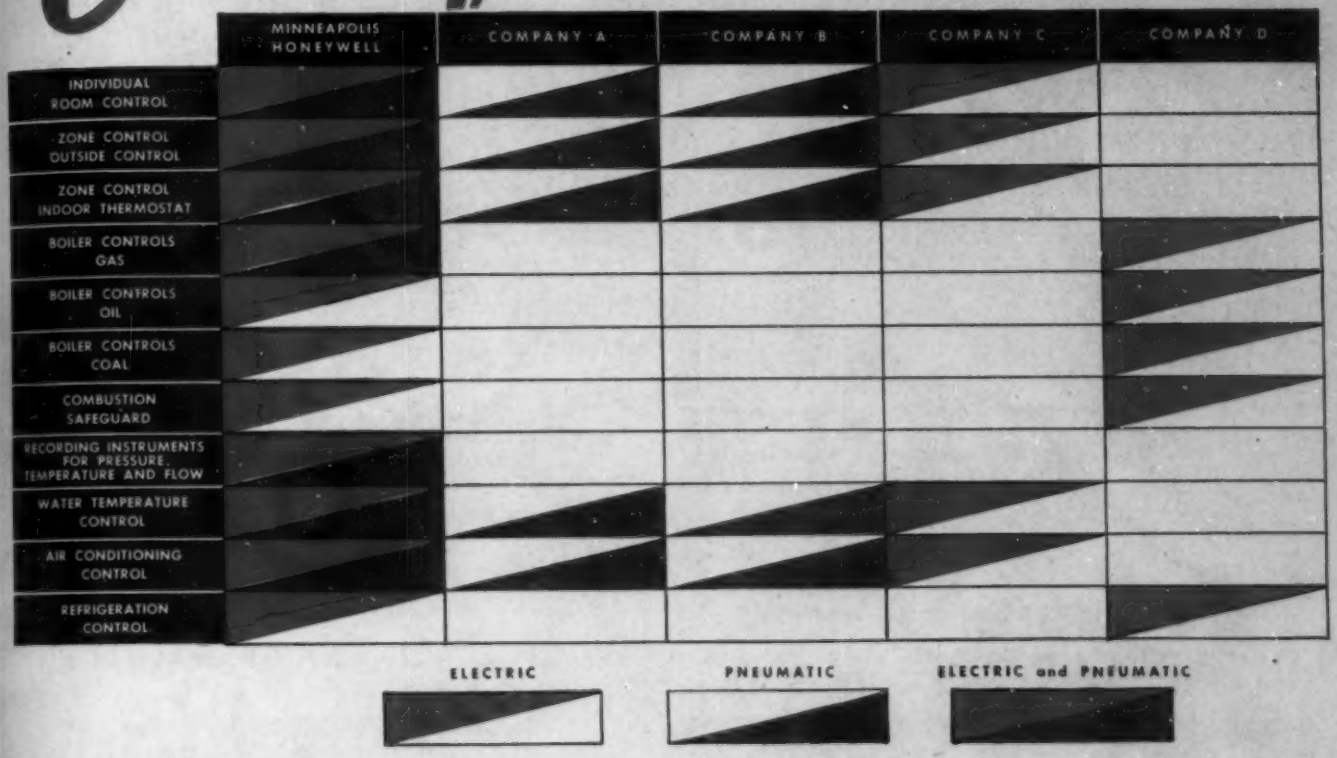

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360 N. Michigan Ave., Chicago 1, Ill.
Gentlemen:
Please send me your free book, "Mr. Higby Learned About Floor Safety the Hard Way."

Signed _____

Title _____

Type of Floor _____

Area _____ sq. ft. C 18

WHAT'S NEW

JULY, 1948

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 44. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

"Explainette" Projector

The new Operadio Explainette "Automatic" sound slidefilm projector employs an entirely new method of automatically advancing filmstrip accurately in synchronization with recording. The result of years of research, the positive automatic operation is achieved by the use of signal dots on the film which are not visible to the audience. The 12 or 16 inch record is made in the same manner as broadcast transcriptions.

The new Explainette "Automatic" uses standard 35 mm. film, similar to that used in talking pictures. Standard disc records are used and the turntable is geared directly to the film. Frames are advanced automatically by a magnetic solenoid. **Operadio Mfg. Co., Dept. CUB, St. Charles, Ill. (Key No. 172)**

Improved Safway Grandstand and Bleacher Equipment

Structural changes make the improved Safway grandstand and bleacher equipment stronger and more easily handled. Trusswork system structural members have been lightened without decreasing the strength of the individual members or the complete stand. The new method of supporting the planks increases the width of the walkway, thus permitting easier access to the stands and greater spectator comfort. A simplified method of fastening planks speeds erecting and dismantling and eliminates possibility of interference.

The re-designed equipment is engineered to combine easy, rapid erection with the ultimate in safety and durability while providing the utmost in visibility and comfort for spectators. The units are built to individual requirements for space and seating and can be made for large or small installations. They are tested and approved by Underwriters' Laboratories. **Safway Steel Products, Inc., Dept. CUB, 6228 W. State St., Milwaukee 13, Wis. (Key No. 173)**

Garland Ranges

The new Garland ranges for cafeteria and other mass feeding use offer any desired combination of open grate, hot top and griddle top sections. The interchangeable sections permit the user to select a top style for his particular cooking needs and to arrange the cooking top in the manner best suited to his kitchen arrangement. In addition to the interchangeable feature, the new units are built with all of the quality features of Garland ranges. **Detroit-Michigan Stove Co., Dept. CUB, 6950 E. Jefferson Ave., Detroit 31, Mich. (Key No. 174)**

Foilclad Pipe Units

Ric-wiL Foilclad Pipe Units have been developed for overhead distribution of steam or liquids. The units are completely prefabricated at the factory, specified types of insulation being used. The pipe is machine coated with high temperature asphalt, tension wrapped with asphalt-saturated asbestos felt, coated a second time with asphalt and tension wrapped with aluminum or copper foil which forms a perfect bond with the asphalt. The unit is thus completely waterproof and weather protected. It is shipped in 21 foot sections. **The Ric-wiL Co., Dept., CUB 1082B, Cleveland 14, Ohio, (Key No. 175)**

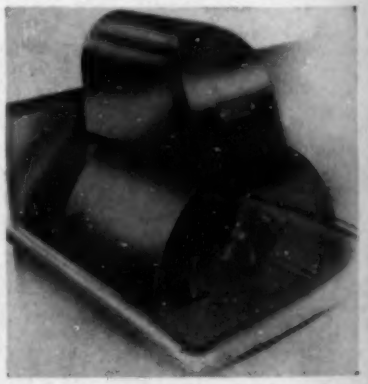
Film Cement

All types of 8, 16 and 35 mm. motion picture film can be spliced with the new film cement recently announced. The cement combines great bonding strength with splicing speed. It is said that there is no distortion of film at the splice and a minimum tendency for the cement to flow over the film or between the film and the splicer blades. **Bell & Howell Co., Dept. CUB, 7100 McCormick Rd., Chicago 45. (Key No. 176)**

Webber Glass Washer

The new Model 603 Webber Glass Washer is a heavy-duty unit designed to fit into any sink and to turn out 2000 clean, sparkling glasses per hour. The unit is equipped with a special bracket that fits over the splashback of a sink and can be installed instantly and easily, without plumbing connections, and be as readily moved when desired. Of stainless steel construction, the cleaning section consists of nylon brushes which spin at 1400 R.P.M.

The nylon brushes, which retain their stiffness and resiliency under heavy continuous use, are instantly detachable. The washer operates above the sink water to remove all soil and the spinning brushes scrub the entire surface of glassware of all sizes and thicknesses. The unit washes two glasses simultaneously with a minimum of effort on the part of the operator. It is equipped with a life-time ball-bearing motor which requires no oiling and provides noiseless, efficient operation. **Webber Glass Washer Co., Dept. CUB, 915 Eye St. N. W., Washington 1, D. C. (Key No. 177)**



Wyandotte Skortex

Skortex is a new Wyandotte laundry product, a synthetic type detergent compound which has proved especially effective for soil removal from all fabrics, including cottons. Field tests on all types of fabrics resulted in exceptionally bright and clean work and wash wheels free of scale or discoloration. The new product is composed of an organic chemical "promoter," a synthetic detergent and an alkaline builder. **Wyandotte Chemicals Corp., Dept. CUB, Wyandotte, Mich. (Key No. 178)**

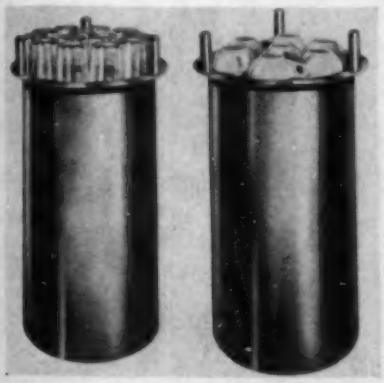
Oakite Composition No. 83

Because of a special protective ingredient, Oakite Composition No. 83 is designed for manual cleaning operations where effectiveness in cleaning and mildness on the skin are desirable. It is soapless and has a special emulsifying surface-active ingredient which increases its detergent properties. It is safe on sensitive metal surfaces, leaves no greasy film, and does not cause irritation and chapping of the user's hands. It is suggested for hand washing of dishes, glassware and other utensils, cleaning kitchen equipment, washing painted walls and woodwork and other cleaning operations where the user must have his hands in the solution for long periods of time. *Oakite Products, Inc., Dept. CUB, 118A Thames St., New York 6. (Key No. 179)*

Improved Lowerator Dispenser

Model BBC-12 AMF Lowerator Dispenser for cups or glasses has an improved design which replaces the open-cage unit with the tube-type construction used on other Lowerator units with no additional outside counter covering needed. The improved construction eliminates the possibility of dirt and dust accumulating in cups and glasses.

The new model stores approximately



75 cups or glasses below the counter and takes up less than 15 inches of space on the counter top. Stainless steel trays hold the cups or glasses and as those from the top tray are removed, the next full tray automatically moves up to dispensing level. The calibrated spring mechanism ensures the top tray always at counter level, regardless of whether the dispenser is filled or nearly empty. **American Machine & Foundry Co., Lowerator Div., Dept. CUB, 485 Fifth Ave., New York 17. (Key No. 180)**

Pottery-Plastic Tea and Coffee Pot

The new Firm-O-Lid Pot for individual service of tea or coffee has, as its name implies, a lid which is firmly attached to the bowl. Made of amber plastic, the lid is so designed that it also forms the handle. The top slides open easily and the pot can be washed in any standard dishwashing machine.

Two advantages of the new pot include lid firmly attached so that it cannot fall off into the cup or be lost or broken in washing and handling, and an insulated handle which stays cool. The ivory-colored, 1½ cup pot is molded of vitreous china, durable yet light in

weight. The shortened pouring spout helps prevent spout chipping and is so designed as not to drip. Should the bowl break, the lid and handle can be used on a new one. **Firm-O-Lid Pot, Inc., Dept. CUB, Fort Wayne, Ind. (Key No. 181)**

Air-Conditioned Candy Vendor

A new vending machine for candy bars has been introduced. The machine offers seven different selections in an air-conditioned unit which permits its use in all weathers and all climates. The unit has Nash-Kelvinator refrigeration, illuminated display and is protected from vermin. The mechanism gives immediate delivery of the candy bars and has a capacity of 500 bars in one loading. The vendor is compact, occupying only 21 by 27 inches of floor space. **United States Vending Corp., Dept. CUB, Board of Trade Bldg., Chicago 4. (Key No. 182)**

Self-Cleaning Vacuum Cleaner

The "E;ect-O-Vac" is a new institutional vacuum cleaner which, as its name implies, cleans itself by ejecting the accumulated dirt. To clean the machine, fresh water is sucked into the 15 gallon tank in which water has trapped and saturated the dust, a lever is reversed and the dirty contents are ejected through the intake hose. The process takes less than a minute, thus saving time, effort and inconvenience. Water may be picked up from the floor and disposed of in the same manner. A germicide may be added in the water trap if desired.

In addition to the usual vacuum cleaner attachments, a patented 13 inch nozzle in which are fitted reversible squeegees to increase pick-up efficiency is part of the equipment with the new machine. **Continental Car-Na-Var Corporation, Dept. CUB, Brazil, Ind. (Key No. 183)**

Improved SoundScriber

Series Four of the SoundScriber Electronic Disc Dictation Machine is the result of exhaustive research into the performance and actual use of the machine. The improved machine is available in the desk model finished in walnut with a built-in loud speaker and a choice of either executive or hand microphone and the portable recorder finished in either leather or Fabrikoid covered case with extension or hand microphone.

The transcriber can be used with the SoundScriber soft speaker, patented Toneband or stethoscope-type Monoset and has instantaneous start-stop and accurate backspacing. In addition to dictation, the machine can be used to record important telephone conversations and for speech training, language instruction, seminars and classroom training. *The SoundScriber Corp., Dept. CUB, 146 Munson St., New Haven 4, Conn. (Key No. 184)*

Portable Floor Edger

The new portable, two-motored floor edger recently developed by Tennant is equipped witht a patented cone-shaped sandpaper cushion and is especially designed for sanding and finishing hard to reach areas under desks, along baseboards and in closets or small rooms. It can also be used for refinishing desk surfaces.

The dual, independent motors and flexible dust shroud permit heat to be rapidly dissipated thus giving longer life to sanding discs. The non-clogging action of the sandpaper, which serves to provide a self-cleaning effect, is designed for almost complete dust control. The low nose of the edger is only 4¼ inches high and the unit is constructed of polished aluminum alloy. It is equipped with built-in light, rubber covered cord, large smooth-rolling casters and instantly detachable dust pipe and fabric bag. **G. H. Tennant Co., Dept. CUB, 2530 N. Second St., Minneapolis 11, Minn. (Key No. 185)**

Chocolate Dispenser

The new Amcoin hot chocolate urns have the All-Glass interior feature of Amcoin coffee urns. Automatic agitation keeps the chocolate thoroughly mixed, thus giving each cup served the same consistency. Thermostatic control keeps the chocolate at the right temperature and the new urns, one and two gallon capacity, save time and effort in service while providing a uniformly mixed beverage. **Amcoin Corp., Dept. CUB, 1148 Main St., Buffalo 9, N. Y. (Key No. 186)**

Insecticide Concentrate

A new group of insecticide concentrates, known as the Pyrenones, has been developed by U.S. Industrial Chemicals, Inc. Of particular importance is the fact that while these chemicals are lethal to a wide range of insect life, they are harmless to warm-blooded animals and can thus be used safely in food storage and preparation rooms and in many other areas where insects may be a problem. The product not only is effective for immediate results, but has long residual effectiveness.

The basic chemical concentrate is provided by the company to individual insecticide manufacturers who will produce, under their own trade names, the types of insecticides required for various uses. *U.S. Industrial Chemicals, Inc., Dept. CUB, 60 E. 42nd St., New York 17. (Key No. 187)*

Hild Shower-feed Machines

The solution storage tank on all models of Hild shower-feed floor, rug and carpet machines has been completely redesigned. The new tank is carried lower on the handle, thus providing better balance.

The new tank has a large opening to permit rapid filling from a pail, a large drain cock at rear to permit draining of the entire contents in 4 minutes,

ample clearance under the drain for a 3 gallon pail so that the operator need not remain while the tank is being emptied, and a removable perforated brass screen to strain out foreign matter. The latter is readily removed for easy cleaning of the tank. **Hild Floor Machine Co., Dept. CUB, 1313 W. Randolph St., Chicago 7. (Key No. 188)**

Hidalift Sash Balance

A completely balanced window sash which permits finger-touch opening of windows is the description given of the new Hidalift Sash Balance. This device, which is installed in the sash out of sight, has a lifting quality which makes it easy to open heavy windows while at the same time it eliminates drafts since it is weathertight. Tension is easily adjusted without removing the sash or screws and the Hidalift is designed for long, trouble-free use. It can be installed in new windows and for modernizing old ones. **The Turner & Seymour Mfg. Co., Dept. CUB, Torrington, Conn. (Key No. 189)**

Economist Steam Generator

The Dutton Economist Steam Generator is designed to burn solid fuels, oil or gas with equal efficiency. The newly designed boiler provides for dual firing so that in case of shortage of one type fuel, it can be converted from oil or gas to hand or stoker firing or vice versa. The change can be accomplished without affecting the efficiency of operation.

The new unit is a highly efficient steam generator engineered to operate with light oil, heavy oil or gas, and for firing solid fuel either by hand or stoker. It is an automatic package type steam generator with full length refractory lined fire box and is shipped completely bricked up and insulated, ready for use. **The C. H. Dutton Co., Dept. CUB, Kalamazoo, Mich. (Key No. 190)**

Non-Inflammable Paint Remover

Savogran Non-Inflammable Remover is designed to meet Federal specifications for non-inflammability and to remove all paint, varnish, shellac, enamel, lacquer and synthetic finishes. It is in heavy cream form that stays wet and stays in place on upright surfaces and requires no after wash. **The Savogran Co., Dept. CUB, India Wharf, Boston 10, Mass. (Key No. 191)**

Portable Transcription Player

The new Newcomb combination transcription player and public address system has been especially designed to fill the varied needs of schools and colleges.

The new unit plays recordings of any size up to 17½ inches diameter at either 33⅓ or 78 R.P.M. with variable speed for pitch and tempo control. The heavy-duty 12 inch speaker has kickproof grill and microphone input with separate volume controls for mixing speech with records and individual bass and treble tone controls. It is approved by Underwriters' Laboratories. The complete unit with

carrying case weighs only 38½ pounds. **Newcomb Audio Products Co., Dept. CUB, 6824 Lexington Ave., Hollywood 38, Calif. (Key No. 192)**

Product Literature

• A 12 page illustrated brochure covering details of the nationwide washroom service offered by the West Disinfecting Co., 42-16 West St., Long Island City 1, N. Y., is now available. Entitled **"An Ideal Washroom Maintenance Service,"** the brochure describes the free periodic maintenance service which the company has developed to assist its customers in sanitary maintenance. **(Key No. 193)**

• The new 40 page catalog of **"Goodform Aluminum Chairs"** is, as it states, "a portfolio for the institutional buyer." The attractively designed and printed catalog, issued by the General Fireproofing Company, Youngstown, Ohio, gives information on the company, the product and the users of the product. Photographs of Goodform Aluminum Chairs of various design are shown in color with additional photographs of installations. **(Key No. 194)**

• Information on *Pittcide,* the bacteriocide, germicide, disinfectant deodorant developed by Pittsburgh Plate Glass Co., Columbia Chemical Div., Fifth Ave. at Bellefield, Pittsburgh 23, Pa., is given in a booklet recently issued by the company. Tables for Pittcide solutions for various uses are included, those for schools and other public buildings starting on page 8. *(Key No. 195)*

• Those concerned with audio-visual education will find the new publication issued by Eastman Kodak Co., Rochester 4, N. Y., entitled **"Selected Indexes and Sources of Photographic Visual Aids"** particularly helpful. Sources of supply for films, slides and slidefilms are listed under subject headings. The source from which each item can be obtained and the terms of loan, rental or purchase are given. A list of non-industrial publicity and propaganda films is also given. **(Key No. 196)**

• **"Norton Abrasive Floors"** are fully described and illustrated in an attractive pamphlet issued by Norton Company, Worcester 6, Mass. Information on the non-slip, wear-resistant qualities of Norton Alundum Floors is amplified with details on types, specifications, application, colors and design. **(Key No. 197)**

• Information on the Ozalid system of reproducing typed, drawn or printed material is given in a booklet entitled *"The simplest business system, yet one of the greatest time and labor savers"* and issued by Ozalid, Div. of General Aniline & Film Corp., Johnson City, N. Y. The various uses for this system are described, with the advantages in time and labor saved by its use. *(Key No. 198)*

• Two reference books which should be of particular value to administrators planning new building or modernization, as well as to architects, engineers and building committees, have been issued by Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit 11, Mich. One is the **Fenestra Blue Book of Steel Windows and Doors,** giving complete specifications and detailed information on all types of steel windows and doors, and the other is **Fenestra Blue Book of Steel Building Panels,** providing similar details on steel building panels for floors, walls, roofs and partitions. **(Key No. 199)**

• A four page catalog in full color has been published by the Danbury Rubber Co., Inc., Danbury, Conn. on **"Danbury Rubber Tile."** Twenty-three of the 27 Danbury tile colors are illustrated as well as 15 different floor designs in actual color, including several designs submitted by architects. **(Key No. 200)**

• Safety treads for stairs and ramps in institutional and public buildings are featured in *Catalog 48* produced by Wooster Products, Inc., Wooster, Ohio. The 12 page catalog also describes and illustrates elevator sills, abrasive thresholds, window sills, curb bars and trench covers. Typical installations together with methods of fastening, suggestions for repairing stairs and specifications for architects are presented together with cross-sectional views and complete descriptive information. *(Key No. 201)*

• A series of three catalogs covering extractors has been issued by Troy Laundry Machinery Division of American Machine and Metals, Inc., East Moline, Ill. These attractive folders give full construction details, installation and operating data and foundation plans on the *Troy Minute Man Laundry Extractors, Catalog No. YX-12-47, the Troy Atlas Laundry Extractors, Catalog No. YX-13-47, and the Troy Super-Mercury Laundry Extractors, Catalog No. YX-14-47. (Key No. 202)*

• The story of Minute Maid Orange Juice is told in a reprint entitled *"Orange Concentrate Frozen by Vacuum"* and issued by Vacuum Foods Corp., Park Square Bldg., Boston 16, Mass. The method of preparing this natural tasting frozen orange concentrate is described fully. *(Key No. 203)*

• The new **Kellogg Masterphone Catalog, 1000 Series,** has recently been issued by Kellogg Switchboard & Supply Co., 6650 S. Cicero Ave., Chicago 38. The booklet is a supplement to the Kellogg No. 10 General Catalog and contains technical and general information on Kellogg Masterphones and their parts. **(Key No. 204)**

• *"Canned Foods in the Nutritional Spotlight"* is the title of a new reference booklet prepared as a result of a continuing study which is conducted at leading universities and is sponsored by the National Canners Association and the Can Manufacturers Institute. The information includes a series of charts which rank the foods according to the 6 chief vitamins, 3 minerals, fat, carbohydrate and protein and a tabulation providing a quick, easy reference to the component nutrients in the 41 most commonly used canned foods. Reasonable quantities of the booklet are available to professional personnel from the Can Manufacturers Institute, 60 E. 42nd St., New York 17. *(Key No. 205)*

• A new folder has been issued giving detailed information on **"The '400' Series. National Heat Extractor, Hand Fired, Oil Fired, Stoker Fired."** Designed for dependable heating of institutions, this unit is described by diagrammatic drawings and text. The material was prepared by the National Radiator Co., Johnstown, Pa. Also available are folders on the "100," "200," and "300" series heaters which are designed for smaller institutions. **(Key No. 206)**

• The Commodity Standards Division of the National Bureau of Standards, U. S. Department of Commerce, Washington 25, D. C., announces the availability of printed copies of Commercial Standard CS145-47, *Testing and Rating Hand-Fired Hot-Water-Supply Boilers.* Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 10 cents each. *(Key No. 207)*

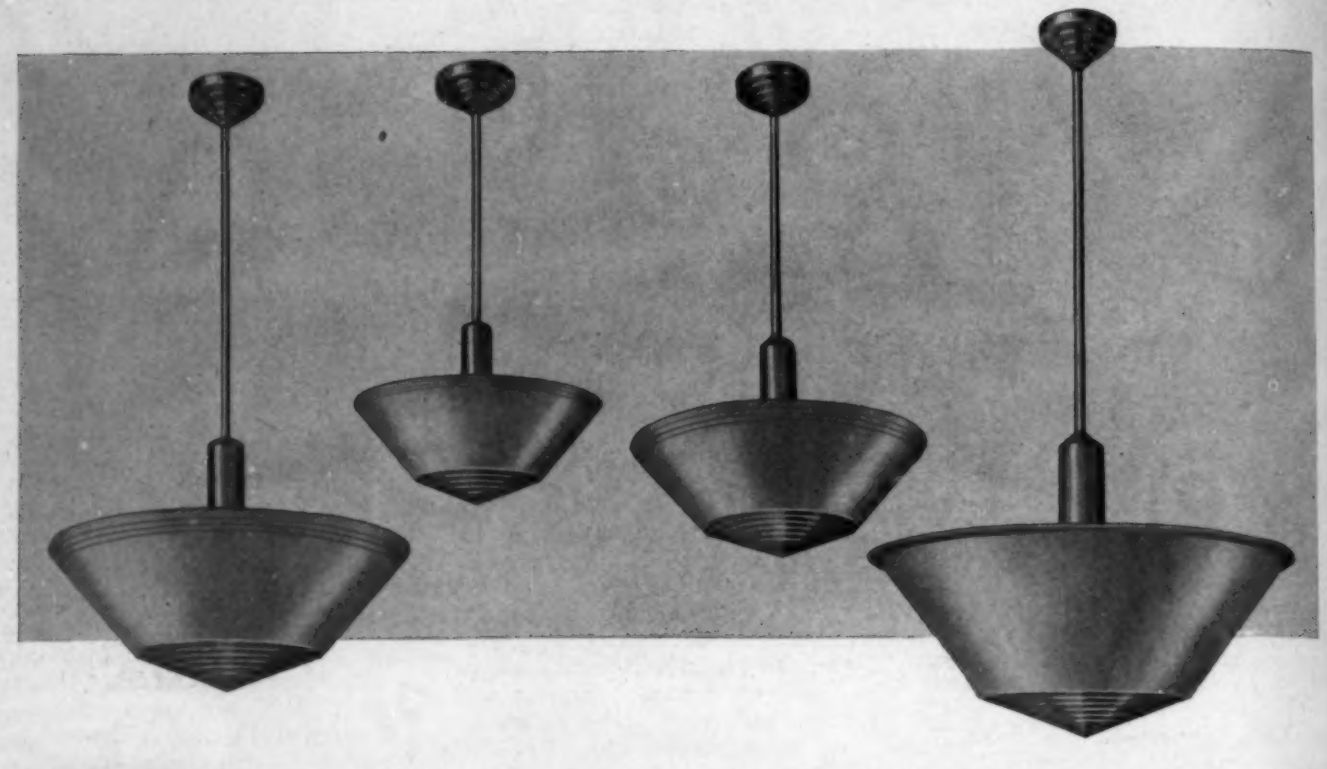
Suppliers' Plant News

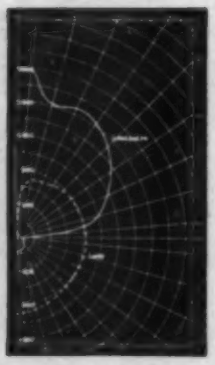
Angelica Jacket Company, 1419 Olive St., St. Louis 3, Mo., manufacturer of washable service uniforms of all types, announces the opening of a new modern store at **1120 Walnut St., Philadelphia,** to service small immediate needs of institutional customers in that territory. **(Key No. 208)**

Charles Beseler Company, manufacturer of opaque projection equipment, has moved to greatly enlarged quarters at **60 Badger Ave., Newark, N. J.** The new facilities, designed to meet the increased demand for opaque projectors, include a projection theater, modern testing laboratories and executive offices. **(Key No. 209)**

Sterling Tool Products Co., 1340 N. Milwaukee Ave., Chicago 22, manufacturer of portable electric and air driven sanding machines, announces the opening of a new sales office and service depot at **405 W. Washington St., Los Angeles, Calif. (Key No. 210)**

This is the Wakefield *Commodore*





Shown here is the distribution curve for the Commodore No. 369, plotted by Electrical Testing Laboratories. All Commodores are Underwriters Approved.

. . . an Economical Incandescent Luminaire for Classrooms, Offices and Drafting Rooms

The Wakefield Commodore is being used with marked success in one of the experimental rooms of Rosedale School in Austin, Texas, where the concept of the coordinated classroom as the answer to good lighting was developed. When the elements of decoration, daylight control and seating were brought into balance, it was shown that the luminous indirect Commodore unit provides a quality and a quantity of illumination contributing remarkably to an environment in which seeing is relatively effortless.

Of particular interest is the fact that Commodores are economical to install and maintain. And they are adaptable to practically any lighting requirement since they are manufactured in a complete series for wattages from 200W to 1000W, with all hangers and reflectors uniformly styled. The white molded Plaskon reflectors are made in diameters from 15 to 26 inches, varying in wall thickness to insure uniformity of brightness throughout any installation. The hangers are aluminum, finished in satin aluminum.

For complete data on the Wakefield Commodore, write for Catalog 48A. The F. W. Wakefield Brass Company, Vermilion, Ohio.

Wakefield Over-ALL Lighting

FOR OFFICE • DRAFTING ROOM • STORE AND SCHOOL

DES. PAT. 148, 191

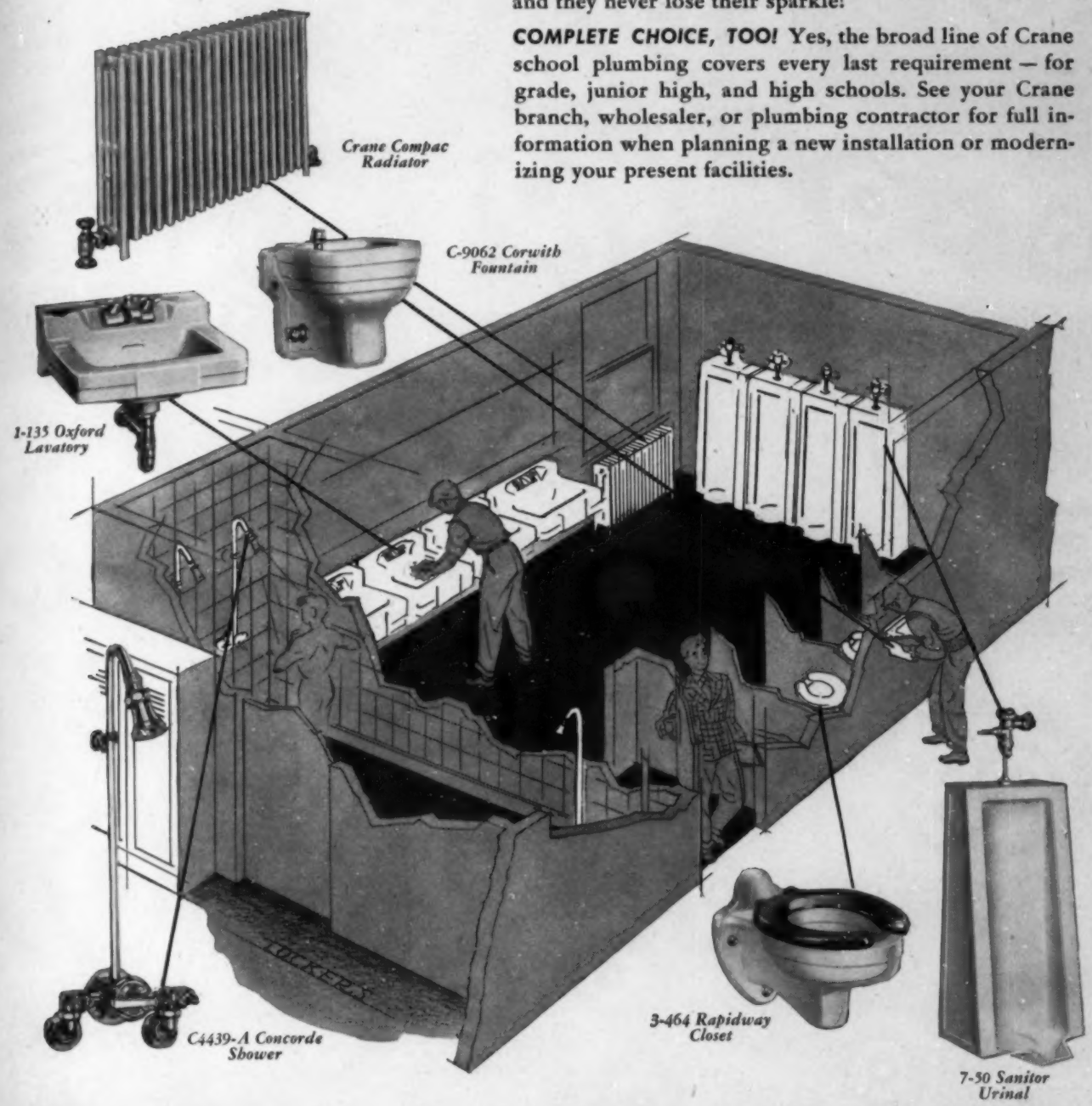
THE STAR — THE GRENADIER IV — THE COMMODORE — THE DIPLOMAT

High quality... low maintenance with CRANE school fixtures

HIGH QUALITY. You see it in the lasting gleam of every Crane school fixture . . . in the extra sanitary features that guard student health . . . in the Crane *Dial-ese* controls, so easy for even small fingers to operate.

LOW MAINTENANCE. With *Dial-ese* faucets, for example: to renew one, you just slip out the old cartridge, slip in the new—one cartridge unit fits all *Dial-ese* faucets. The fixtures themselves are built to last through years of tough usage . . . a daily once-over with a damp cloth, and they never lose their sparkle!

COMPLETE CHOICE, TOO! Yes, the broad line of Crane school plumbing covers every last requirement — for grade, junior high, and high schools. See your Crane branch, wholesaler, or plumbing contractor for full information when planning a new installation or modernizing your present facilities.



CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO 5
PLUMBING AND HEATING
VALVES • FITTINGS • PIPE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

Look to Sexton

Whatever your paper needs—whether for sandwich bags, hot-drink cups, take-home containers or sheer lace paper napery, embossed place-mats and doilies—Sexton can supply them—and promptly! The hundreds of items in our large and varied assortment assure you what you need—when you need it.

Good Food for Pleased Guests

1948 John Sexton & Co.